Cable Protection

Helawrap Cable Management System

Organise, fix and protect cables quickly and easily

HellermannTyton

Helawrap Cable Management System

The Helawrap cable management system is the ideal solution for bundling, protecting and fixing cables and wires in industrial as well as in home and office environments. With the Helawrap accessory clips and mounting plate, Helawrap cable cover can be organised, routed and securely fixed to virtually any surface.

With the Helawrap accessory set, cables can be bundled, protected and fixed in wiring cabinets and industrial machines.

The Helawrap Cable Management System for Industry

Features and Benefits

- A complete system for bundling, protecting and fixing cables
- Covers a large range of applications with bundle diameters from 8 mm to 32 mm
- Protects cables and wiring effectively against mechanical stress
- Cable cover applied rapidly with a simple sliding action over long cable lengths
- Unique aperture design for branching off cables at any point
- Colours include black, grey, silver and white
- Materials available in polypropylene and polyamide 6 V0 (black only)
- All materials halogen free
- Applicator tool always included

Application

Helawrap is used to bundle and protect cable and wiring in the electrical industry, in panel building, on machines and in automotive and truck manufacturing where movement and vibration are experienced.
Due to its excellent flame-retardant properties, the halogen-free Helawrap HWPA-V0 is the product of choice wherever fire protection is essential, for example in mass transit.

Cables can be branched off at any point for better, more flexible protection.

Material Data

Material	**Polyamide 6 V0 (PA6V0)**
Operating Temperature	**-40 °C to +90 °C, Intermittent +120 °C**
Flammability	**UL94 V0**

RoHS

HF (halogenfree)

Material Data

Material	**Polypropylene (PP)**
Operating Temperature	**-60 °C to +110 °C, Intermittent +140 °C**
Flammability	**UL94 HB**

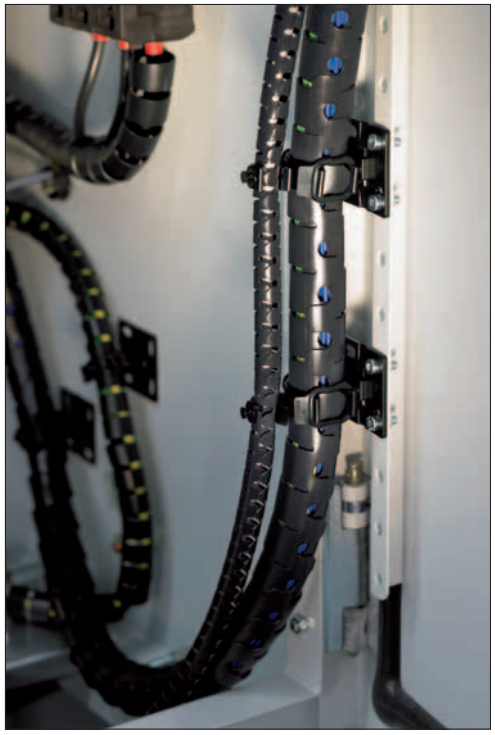
RoHS

HF (halogenfree)

Technical Table

Article-No.	Type	Colour	Bundle Ø max.	Wall (WT)
HWPP				
161-64101	**HWPP8**	Black (BK)	9	0.75
161-64102	**HWPP8**	Grey (GY)	9	0.75
161-64103	**HWPP8**	Silver (SR)	9	0.75
161-64104	**HWPP8**	White (WH)	9	0.75
161-64201	**HWPP16**	Black (BK)	16	0.80
161-64202	**HWPP16**	Grey (GY)	16	0.80
161-64203	**HWPP16**	Silver (SR)	16	0.80
161-64207	**HWPP16**	White (WH)	16	0.80
161-64301	**HWPP20**	Black (BK)	21	0.95
161-64302	**HWPP20**	Grey (GY)	21	0.95
161-64303	**HWPP20**	Silver (SR)	21	0.95
161-64304	**HWPP20**	White (WH)	21	0.95
161-64401	**HWPP25**	Black (BK)	27	1.05
161-64402	**HWPP25**	Grey (GY)	27	1.05
161-64403	**HWPP25**	Silver (SR)	27	1.05
161-64407	**HWPP25**	White (WH)	27	1.05
161-64501	**HWPP30**	Black (BK)	32	1.30
161-64502	**HWPP30**	Grey (GY)	32	1.30
161-64503	**HWPP30**	Silver (SR)	32	1.30
161-64504	**HWPP30**	White (WH)	32	1.30
HWPA-V0				
161-63101	**HWPAV08**	Black (BK)	9	0.85
161-63201	**HWPAV016**	Black (BK)	16	0.85
161-63301	**HWPAV020**	Black (BK)	21	0.95
161-63401	**HWPAV025**	Black (BK)	27	1.05
161-63501	**HWPAV030**	Black (BK)	32	1.05

All Dimensions in mm. Subject to technical changes.



Protecting, fixing and bundling cables with the Helawrap cable cover and accessory set, e.g. in wiring cabinets.

Applicator Tool HAT

The new Helawrap applicator tool enables the user to bundle cable rapidly and effortlessly. The applicator tool has been optimised to glide smoothly through the cover and allows easy insertion of cable into Helawrap. The unique design also allows individual cables to be removed from the applicator tool and branched off through the cover apertures. A tool is included with every Helawrap package. Additional tools can be purchased separately.

Applicator tools HAT are available for every Helawrap cover size.

Technical Table

Article-No.	Type	Colour	Pack Cont.
161-60001	**HAT8**	Blue (BU)	10
161-60002	**HAT16**	Blue (BU)	10
161-60003	**HAT20**	Blue (BU)	10
161-60004	**HAT25**	Blue (BU)	10
161-60005	**HAT30**	Blue (BU)	10

All Dimensions in mm. Subject to technical changes.

Helawrap Cable Management System

The Helawrap cable management system, availble in 2 metre lengths, puts an end to cable chaos at home and in the office.

The Helawrap Cable Management System for Home and Office

Features and Benefits

- Practical 2 metre length
- Covers a large range of applications with two standard bundle diameters 16 mm and 25 mm
- Available in black, grey and silver
- Provides a better organised, tidy and safe electrical environment
- Made of sturdy, flexible polypropylene
- Applicator tool always included

Application

The versatile cable cover organises and protects the cables and wires of your PC, TV set, DVD player, VCR or hi-fi system. With the Helawrap accessory set, multiple Helawrap cable covers can be joined and mounted firmly to tables, desks, cabinets or walls.

Large choice of colours for various home and office environments.

Helawrap, the fast and easy solution to your cable chaos.

Material Data

Material	**Polypropylene (PP)**
Operating Temperature	**-60 °C to +110 °C, Intermittent +140 °C**
Flammability	**UL94 HB**

RoHS

HF (halogenfree)

Technical Table

Article-No.	Type	Colour	Bundle Ø max.
161-64204	**HWPP16L2**	Black (BK)	16
161-64205	**HWPP16L2**	Grey (GY)	16
161-64206	**HWPP16L2**	Silver (SR)	16
161-64404	**HWPP25L2**	Black (BK)	27
161-64405	**HWPP25L2**	Grey (GY)	27
161-64406	**HWPP25L2**	Silver (SR)	27

All Dimensions in mm. Subject to technical changes.

Insert one or more cables into the insertion slot of the applicator tool.

Place the applicator tool in one end of the Helawrap cable cover.

Simply slide the applicator tool through the Helawrap cover.

The Helawrap accessory set is a family of retaining clips and mounting plates designed specially for the Helawrap cable cover. Helawrap cable covers can now be flexibly joined and reliably fixed virtually anywhere.

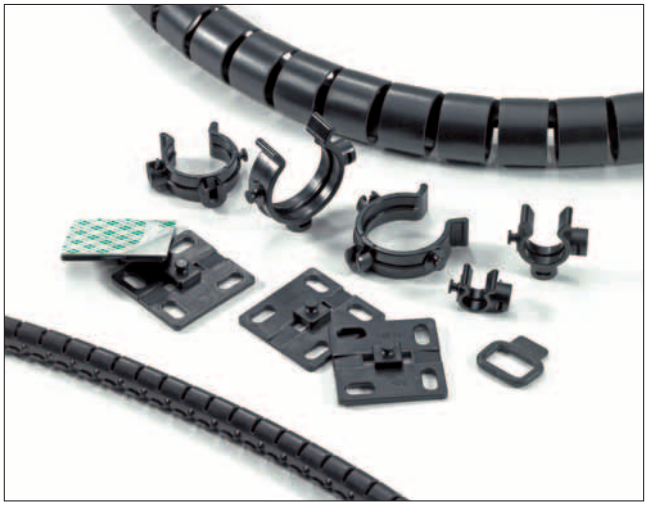
Helawrap Accessory Set HWClips and HWBase

Features and Benefits

- Clips designed for each Helawrap diameter
- Each clip can be joined to the mounting plate or other clips of any size
- Any number of Helawrap cable covers can be bundled together
- Each clip turns freely to handle cable runs from different angles
- Clips can be released and reused
- Mounting plate can be fixed with screws, cable ties or adhesive
- Made of impact modified, heat-stabilised polyamide 6.6
- Acrylic adhesive provides long-lasting hold
- R1 strap can be stretched over larger clips to provide tight hold in rugged industrial applications

Application

Helawrap accessory clips and mounting plates can be linked together to bundle, protect and fix any number of cables on industrial machines as well as in wiring cabinets, particularly in the door area where movement is a requirement. Helawrap accessories are also used to manage cables in the office or home.



The Helawrap accessory set for bundling, fixing and protecting multiple cable runs.

Material Data

Material	**Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)**
Operating Temperature	**-40 °C to +105 °C**
Flammability	**UL94 HB**

RoHS

HF (halogenfree)

Multiple clips can be joined. Clips swivel freely.

For secure hold, R1 loop can be used (for HWClip25 and HWClip30 only).

Technical Table

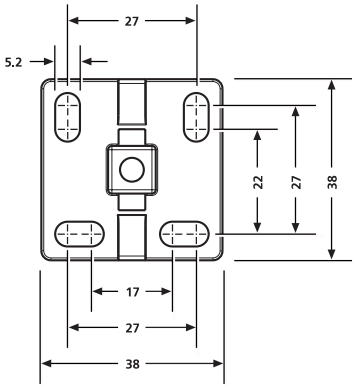
Article-No.	Type	for Helawrap size	Colour	Pack Cont.
HWClips				
161-64002	**HWCLIP08**	8	Black (BK)	50
161-64004	**HWCLIP16**	16	Black (BK)	50
161-64006	**HWCLIP20**	20	Black (BK)	50
161-64008	**HWCLIP25**	25	Black (BK)	50
161-64010	**HWCLIP30**	30	Black (BK)	50
201-20010	**R1**	–	Black (BK)	500

All Dimensions in mm. Subject to technical changes.

Technical Table

Article-No.	Type	Adhesive	Colour	Pack Cont.
HWBase				
161-64012	**HWBASEA**	Acrylate with base of Polyurethane foam	Black (BK)	50
161-64014	**HWBASE**	–	Black (BK)	50

All Dimensions in mm. Subject to technical changes.



Helawrap HWBase/HWBaseA

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08/06

HellermannTyton

Helagaine Twist-In

Self-closing cable protection sleeving

Polyester self-closing sleeving

Helagaine Twist-In

Helagaine Twist-In is used to bundle and protect pre-terminated cables in machine-building and automation, electrical installations and automobile and truck manufacturing. Helagaine Twist-In is also available in practical 2 m and 5 m lengths for use in the home or office.

Features and Benefits

- Self-closing sleeve made of polyester
- Very good protection against abrasion
- Ideal for retro-fitting
- Quick and easy installation and removal
- Allows to bundle for inspection, maintenance and assembly
- Small range of sizes covers a wide range of applications

Helagaine Twist-In gives easy access to cables and wires for inspection, maintenance and assembly.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +125 °C
Melting Point	+255 °C
Flammability	Self extinguishing, FMVSS 302

HF ✓ RoHS ✓

Cut lengths available on request. Please contact us!

Application video: Twist-In

Twist-In Distribution-Pack.

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
Twist-In 05	4	5	Black (BK)	150 m	45	170-01000
Twist-In 08	5	8	Black (BK)	100 m	45	170-01001
Twist-In 13	10	13	Black (BK)	50 m	45	170-01002
Twist-In 19	16	19	Black (BK)	25 m	45	170-01004
Twist-In 25	19	25	Black (BK)	25 m	45	170-01005
Twist-In 29	25	29	Black (BK)	15 m	45	170-01006
Twist-In 32	29	32	Black (BK)	15 m	45	170-01007
Twist-In 38	32	38	Black (BK)	15 m	45	170-01008
Twist-In 50	38	50	Black (BK)	15 m	45	170-01010

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
Twist-In 05	4	5	Black (BK)	5 m	45	170-01011
Twist-In 08	5	8	Black (BK)	5 m	45	170-01012
Twist-In 13	10	13	Black (BK)	5 m	45	170-01013
Twist-In 19	16	19	Black (BK)	2 m	45	170-01014
Twist-In 25	19	25	Black (BK)	2 m	45	170-01015
Twist-In 29	25	29	Black (BK)	2 m	45	170-01016
Twist-In 32	29	32	Black (BK)	2 m	45	170-01017
Twist-In 38	32	38	Black (BK)	2 m	45	170-01018

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

04/2017 031-93469
Helagaine Twist-In BRO

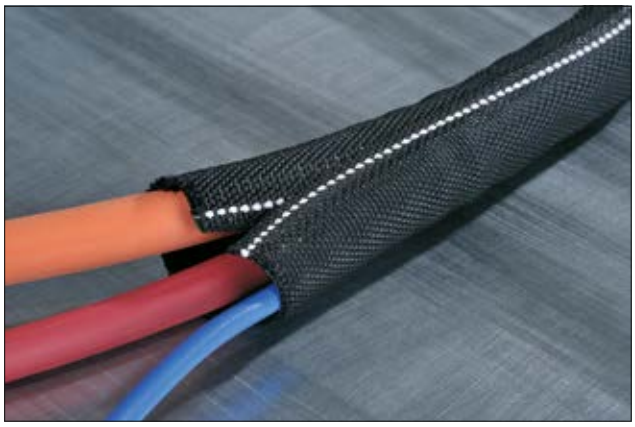
Polyester self-closing sleeving, flame-retardent

Helagaine Twist-In-FR

Helagaine Twist-In-FR can be used in areas where fire protection is important, such as railway, aerospace and shipbuilding.

Features and Benefits

- Self-closing sleeve made from polyester
- Optimal fire protection
- Ideal for retro-fitting
- Very easy, quick installation and removal
- Quick and easy access to bundle for inspection, maintenance and assembly
- Small range of sizes covers a wide range of applications



Helagaine Twist-In-FR with the white identification yarn.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +125 °C
Melting Point	+240 °C
Flammability	FMVSS 302, Self extinguishing

Cut lengths available on request. Please contact us!

To prevent fraying, the sleeve can be cut with the hot cutting tool HSG0.

HF ✓ RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
Twist-In-FR 05	4	5	Black with White Identification Yarn (BKIDWH)	150 m	45	170-01100
Twist-In-FR 08	5	8	Black with White Identification Yarn (BKIDWH)	100 m	45	170-01101
Twist-In-FR 13	10	13	Black with White Identification Yarn (BKIDWH)	50 m	45	170-01102
Twist-In-FR 19	16	19	Black with White Identification Yarn (BKIDWH)	25 m	45	170-01104
Twist-In-FR 25	19	25	Black with White Identification Yarn (BKIDWH)	25 m	45	170-01105
Twist-In-FR 29	25	29	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01106
Twist-In-FR 32	29	32	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01107
Twist-In-FR 38	32	38	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01108
Twist-In-FR 50	38	50	Black with White Identification Yarn (BKIDWH)	15 m	45	170-01109

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2 NF F

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

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04/2017 031-93469
Helagaine Twist-In BRO

HellermannTyton

TTE420S Printer

Thermal Transfer Printer

Thermal Transfer Printer

TTE420S

The TTE420S printer is ideal for use where low to medium print volumes are needed. Due to its excellent value it is also suitable as a short-term replacement or back up printer to our range of high volume industrial thermal printers that use either adhesive labels or heat shrinkable sleeves.

As it is small and light, it can also be moved from workstation to workstation with no difficulty.

Features and Benefits

- Thermal transfer printer, for low and medium printing volumes
- Lightweighting, solid housing, very easy to transport
- Print head resolution: 300 dpi
- Perfect use for printing standard bar codes, numbers and text
- Materials to print on: adhesive labels, heat shrink markers, TIPTAG markers.

Application

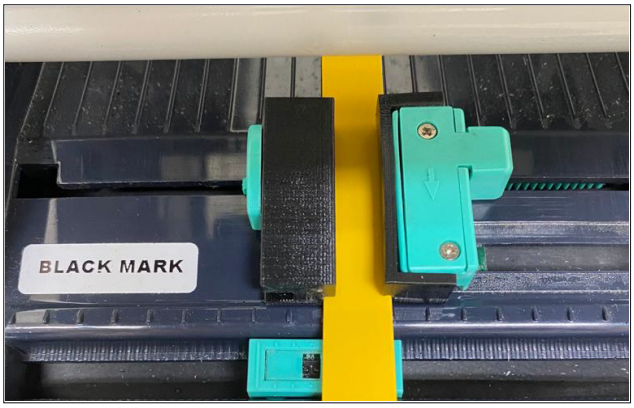
The printer is virtually limitless when it comes to suitable applications. It can be used for identification of goods in the logistics area and marking of cables in the electical industry.

Print Method	Thermal Transfer
Print Head Type	300dpi
Print Speed	127mm/s
Max. Print Width	108 mm
Label Height Max (metric)	13 mm
Printer Interfaces	serial port, parallel port, USB
Supported Barcodes, Printer	Standard and 2D
Printer Memory	24 MB RAM
Dimensions W x H x D	213 mm x 188 mm x 314 mm
Weight	2.80 kg

TYPE	Article-No.
TTE420S	556-00501
G400 Guide for TTE420S (For Continuous Substrate)	556-00503
Tag Print Pro 4.0 EMEA	556-00059
C400 Caddy for 3" core label roll	556-00502

RoHS

Thermal transfer printer (TTE420S)



G400 Guide for Continuous Substrate allows the printing of narrow sleeves, using external roll support shaft and guide blocks.

TagPrint Pro 4.0, is an easy to use software that speeds up production of markers, labels and identificiation tags.

HellermannTyton

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12/2020 920-69807

RELICON by HellermannTyton

RELICON – Innovative Cast Resin and Gel Technology

For Reliable Cable Connections

RELICON:
expertise based on experience

Innovative cast resin and gel systems for reliable cable connections.

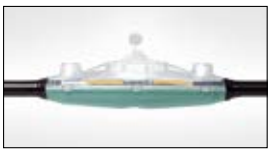
HellermannTyton is one of the leading suppliers of products for fastening, fixing, identifying and protecting cables and their connecting components.

We also develop pioneering systems in the field of data and network technology. Our corporate philosophy focuses on customers and their need for the best possible solutions around cable management. RELICON branded cast resin and gel systems are highly innovative premium products designed to fulfil the highest expectations. RELICON products extend HellermannTyton's insulation and protection portfolio with leading cable connection technology. Relicon products deliver outstanding performance with quality you can rely on.

Part of what makes HellermannTyton a market leader is our pioneering spirit coupled with the technical expertise to continuously anticipate future demands and to answer these challenges with optimal product solutions.

10/2016 031-93417
CAT RELICON

RELICON by HellermannTyton



Cast Resin Technology
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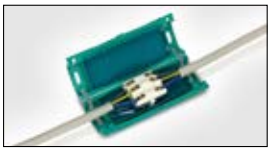

Gel Technology
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10/2016 031-93417
CAT RELICON

RELICON: reliably connecting the present and the future

We believe in our products. The promise they deliver is anchored in our brand name: RELICON stands for “reliable connection”. You can trust RELICON to make reliable connections between today’s needs and tomorrow’s possibilities. A reliable connection between companies’ goals and the interests of the environment. A reliable connection between efficient manufacture and optimal use.

RELICON has rapidly grown into a respected brand in the electrical installation market. Applying our longstanding engineering expertise, we develop and produce high quality cable connection products for medium and low voltage applications and contribute significantly to electrical network reliability. We supply the market with leading cast resin and gel products and a complete range of application accessories.

RELICON branded products are state-of-the-art and combine technical expertise with exceptional quality.

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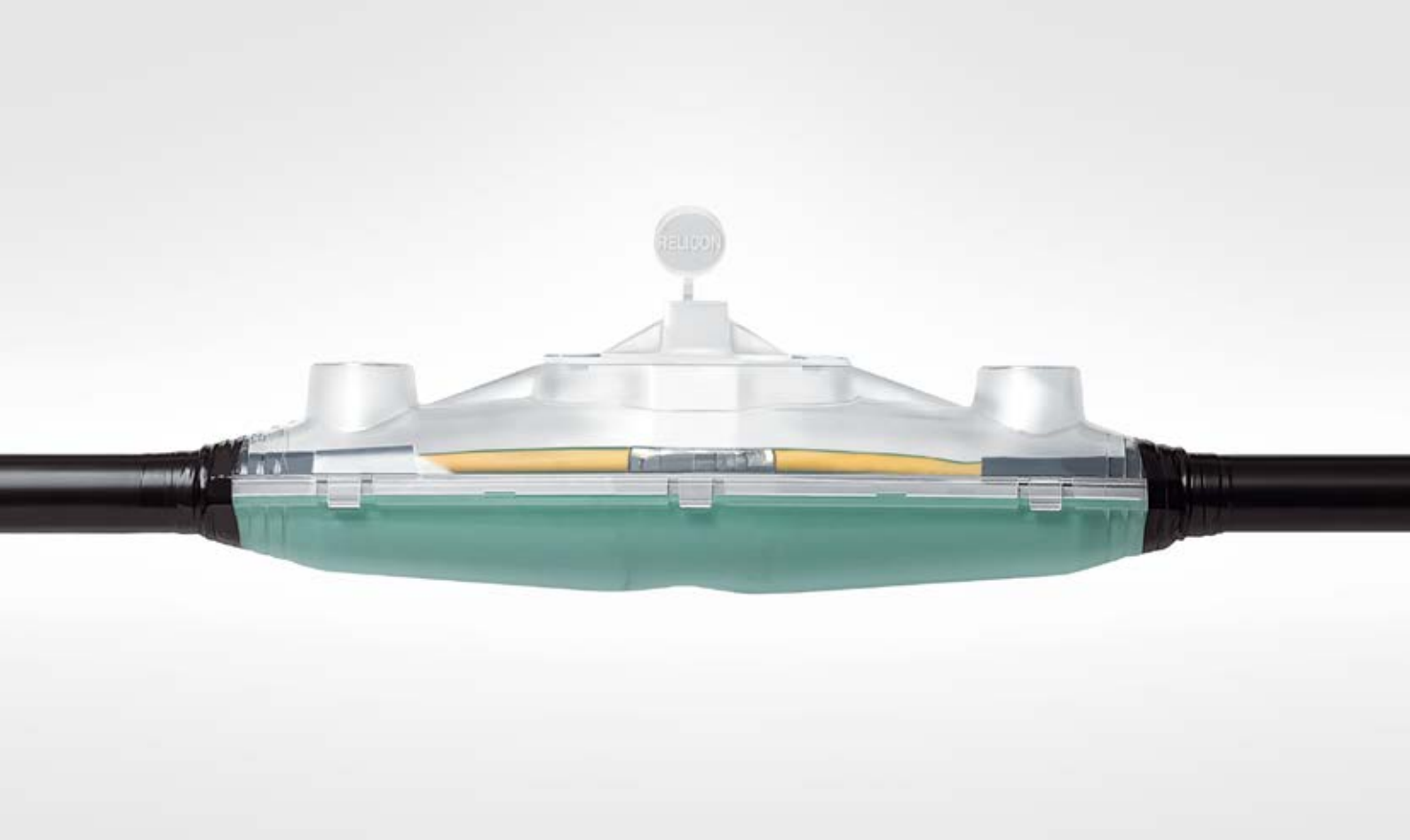


Cast Resin Technology

Straight-through joint		
without connectors	RELICON i-Line SF	8
with connectors	RELICON i-Line Premium SF	9
Flexible straight-through joint		
	RELICON F-Line SF	10
Branch joints		
	RELICON Y-Line SF	11
	RELICON T-Line SF	12
Parallel branch joint		
for house connections	RELICON PAH-1	13
	RELICON PAH-2	14
	RELICON PAH-3	16
	RELICON PAH-4	18
	RELICON PA-11	20
	RELICON PA-12	22
	RELICON PA-13	24
Two-component polyurethane cast resin		
	RELICON PUR 33	28
	RELICON PUR 66	29
	RELICON PUR 771	30
	RELICON PUR 44 Flex	31
	RELICON PUR 112 FR	32
Two-component epoxy resin		
	RELICON EP 64	33
	RELICON EP 20	34
Two-component cold casting compound		
	RELICON Reliflex	35
Two-component polyurethane sealing mastic		
	RELICON PUR DS	36

10/2016 031-93417
CAT RELICON

RELICON cast resin technology by HellermannTyton

Cast resin cable joints are applied wherever cable and wiring connections are submersed or buried underground.

Cast resin joints are exposed to high stress, so the cured two-component cast resin must deliver reliable long-term mechanical protection against external influences on the cable connection.

RELICON cast resin cable joints create reliable connections in the ground. They protect cables from thermal stress, moisture and dust. They are resistant to all environmental influences and are ecologically safe. RELICON supplies polyurethane (PUR) cable joints suitable for universal use in the majority of applications scenarios. Epoxy resin (EP) cable joints are available for chemical and oil processing industries.

RELICON Safe Filling (SF) technology.

10/2016 031-93417
CAT RELICON

RELICON by HellermannTyton

RELICON SF technology: safe and easy filling

The special "Safe Filling" (SF) system makes RELICON cast resin joint products a pleasure to work with.

When followed correctly, SF ensures that any hazardous contact with the cast resin can be avoided and the fitter has visual control of the mixing and filling steps at all times.

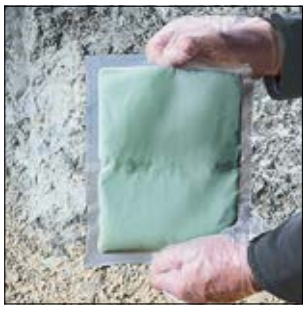
Resin and hardener are mixed in a transparent double-chamber pouch. The mixture can be easily poured into the joint sleeve once the supplied nozzle is securely pressed onto the adapter ring in the pouch. The transparent cable joint parts guarantee that the fitter can visually control the entire filling process. The hydrophobic (dewatering) cast resin is environmentally safe. The mixture can be disposed of as regular household waste.

Excellent hydrolytic stability makes RELICON cast resins particularly suitable for reliable long-term applications.

Transparent 2-chamber pouch for a optimized visual inspection of the mixing process.

The middle cold seal between the resin and harder component opens by means of pressure.

Simple mixing of the two components.



The patented color change gives the correct mixing process.

Automatic and leakproof opening of the pouch through installation of the filling nozzle.

The filling nozzle in combination with the adapter makes filling the joint very easy and efficient.

10/2016 031-93417
CAT RELICON

Straight-through joint without connectors

RELICON i-Line SF

RELICON straight-through joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- Safe-Filling system (SF)
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

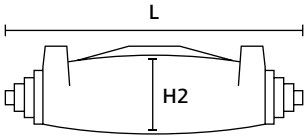
Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape
- Spacer for max. 5 core cable (i-1 to i-4)

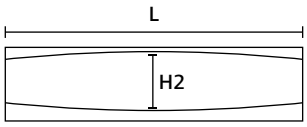
Straight-through joint i-Line SF (safe filling).

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



i-Line (i-0 - i-6)



i-Line (i-7)

Without connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
i-0 / SF	7-16	3 x 1.5	5 x 2.5	182.0	25.0	95 ml / 130 g	435-12019
i-1 / SF	8-24	3 x 1.5	4 x 10 / 5 x 6	190.0	36.0	165 ml / 226 g	435-12000
i-1.5 / SF	8-24	3 x 1.5	4 x 16 / 5 x 10	215.0	39.0	220 ml / 301 g	435-12001
i-2 / SF	14-30	5 x 1.5	4 x 25 / 5 x 16	276.0	49.0	400 ml / 548 g	435-12002
i-3 / SF	23-35	5 x 10	4 x 50 / 5 x 35	360.0	54.0	655 ml / 897 g	435-12003
i-4 / SF	28-47	4 x 25	4 x 95	400.0	69.0	1140 ml / 1562 g	435-12004
i-5 / SF	33-55	4 x 50	4 x 150	520.0	100.0	2 x 1450 ml / 1987 g	435-12005
i-6 / SF	48-70	4 x 150	4 x 240	700.0	128.0	4 x 1640 ml / 2247 g	435-12006
i-7 / SF	55-77	4 x 185	4 x 400	870.0	140.0	5 x 1950 ml / 2672 g	435-12007

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Straight-through joint with connectors

RELICON i-Line Premium SF

RELICON Premium straight-through joints are provided with an integrated connector block and made for low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- Safe-Filling system (SF)
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Connectors for aluminium and copper conductors
- Safe connection for up to 5 core cables

Content of Set / Kit

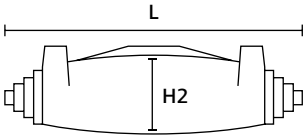
- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape
- Connector block with 5 screw connectors incl. allen key

Straight-through joint i-Line SF (safe filling).

SV-Connector blocks.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



i-Linie Premium

With connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
i-1 Premium SF	8-24	3 x 1.5	5 x 6	190.0	36.0	165 ml / 226 g	435-12020
i-2 Premium SF	14-30	5 x 1.5	5 x 16	276.0	49.0	400 ml / 548 g	435-12021
i-3 Premium SF	23-35	5 x 6	5 x 35	360.0	54.0	655 ml / 897 g	435-12022

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Flexible straight-through joint

RELICON F-Line SF

The flexible RELICON F-Line straight-through joint for low voltage applications can be used to repair and connect flexible cables made of PVC, PUR, EPR like H05RR-F, H07RN-F, etc.

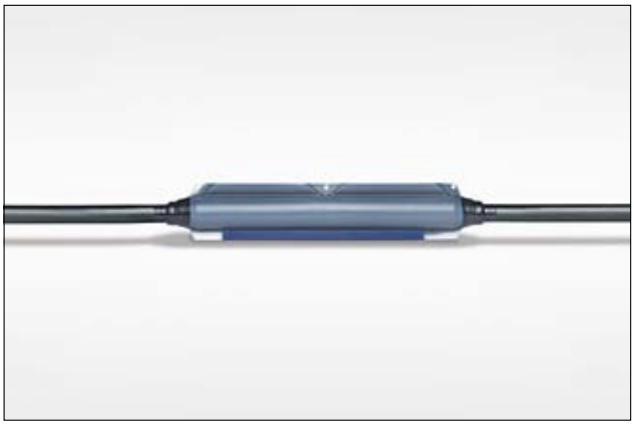
Application: Cable drum, underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Reelable and permanently flexible also at sub-zero temperatures
- Very good adhesion even under permanent bending stress
- Quick and easy installation
- Immediately ready for use
- Longitudinally and transversely watertight
- High abrasion resistance
- Resistant to alkaline earths, chemical influences and UV-radiation

Content of Set / Kit

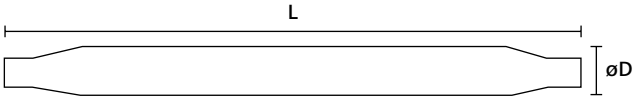
- PUR 44 Flex cast resin
- Two-chamber pouch, transparent
- Moulding shells with accessories
- SF-nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape self-amalgamating tape
- Cleaning cloth, plastic fabric strips



Flexible straight-through joint F-Line.

MATERIAL	Polyurethane resin 44 Flex (PUR44 Flex)
Colour	Black (BK)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	24 months

RoHS



F-Line

Without connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Length (L)	Ø D	Resin Quantity	Article-No.
F-11 / SF	11-16	4 x 1.5	5 x 4	375.0	31.0	250 ml / 300 g	435-00200
F-12 / SF	17-20	4 x 4	5 x 6	375.0	34.0	350 ml / 420 g	435-00201
F-13 / SF	21-27	4 x 10	5 x 16	450.0	42.0	400 ml / 480 g	435-00202
F-14 / SF	25-32	4 x 16	5 x 25	450.0	42.0	600 ml / 720 g	435-00203
F-15 / SF	30-38	4 x 25	5 x 35	440.0	46.0	655 ml / 786 g	435-00204

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Branch joints

RELICON Y-Line SF

RELICON branch joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

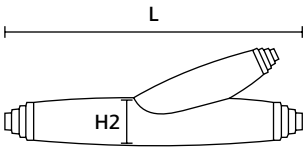
Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

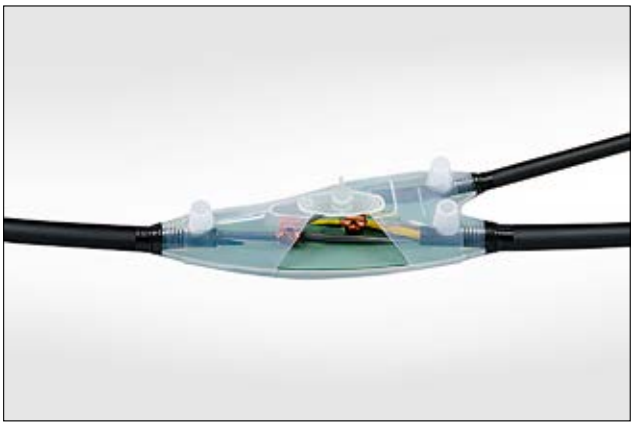
- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- SF-system
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape



Y-Line



Branch joint Y-Line SF (safe filling).

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Angle	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
Y-1 / SF	8-22	3 x 1.5	5 x 10	10-22	30 °	3 x 1.5	5 x 6	205.0	70.0	490 ml / 671 g	435-12009
Y-0 / SF	10-24	3 x 1.5	4 x 10	10-24	30 °	3 x 1.5	4 x 4	190.0	60.0	240 ml / 329 g	435-12008
Y-3 / SF	10-40	4 x 16	5 x 16	13-28	20 °	4 x 10	5 x 10	330.0	90.0	955 ml / 1308 g	435-12023
Y-2 / SF	25-33	4 x 16	5 x 25	15-30	20 °	4 x 6	5 x 16	350.0	98.0	1445 ml / 1980 g	435-12010
Y-6 / SF	30-55	4 x 95	4 x 185	17-40	20 °	4 x 10	4 x 70	430.0	130.0	2 x 1450 ml / 1987 g	435-12012
Y-5 / SF	35-51	4 x 25	4 x 150	17-33	15 °	4 x 10	4 x 50	298.0	120.0	2045 ml / 2802 g	435-12011

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Branch joints

RELICON T-Line SF

RELICON branch joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- SF-system
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

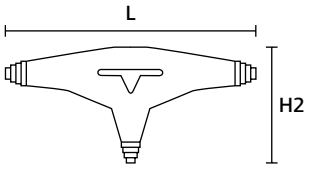
Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape

Branch joint T-Line SF (safe filling).

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



T-Line

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Angle	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
T-1 / SF	16-26	5 x 1.5	5 x 10	10-24	90 °	3 x 1.5	5 x 6	276.0	177.0	455 ml / 623 g	435-12024
T-2 / SF	25-32	5 x 6	5 x 16	18-25	90 °	5 x 1.5	5 x 10	380.0	225.0	2045 ml / 2802 g	435-12025
T-3 / SF	29-40	5 x 10	5 x 50	20-30	90 °	5 x 6	5 x 16	520.0	205.0	2 x 1450 ml / 1987 g	435-12026

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Parallel branch joint house connections

RELICON PAH-1

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings
- Certified according to DIN EN 50393 (corresponds to DIN VDE 0278-393)

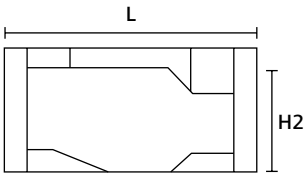
Content of Set / Kit

- Cast resin PUR 33, 1900 ml/2603 g
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)

Parallel branch joint PAH-1 120/290, house connector set.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PAH-1

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-1-120/290-B-SF	30-50	4 x 16	4 x 150	18-33	4 x 35	4 x 150	290.0	120.0	none	Bag	435-00153
PAH-1-120/290-C-S	30-50	4 x 35	4 x 95	18-33	4 x 16	4 x 50	290.0	120.0	Isicompact-S	Can	435-00167
PAH-1-120/290-B-SF-S	30-50	4 x 35	4 x 95	18-33	4 x 16	4 x 50	290.0	120.0	Isicompact-S	Bag	435-00173
PAH-1-120/290-C	30-50	4 x 35	4 x 150	18-33	4 x 16	4 x 50	290.0	120.0	none	Can	435-00159
PAH-1-120/290-C-M	30-50	4 x 35	4 x 150	18-33	4 x 16	4 x 50	290.0	120.0	Isicompact-M	Can	435-00164
PAH-1-120/290-B-SF-M	30-50	4 x 35	4 x 150	18-33	4 x 16	4 x 50	290.0	120.0	Isicompact-M	Bag	435-00170

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Parallel branch joint house connections

RELICON PAH-2

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

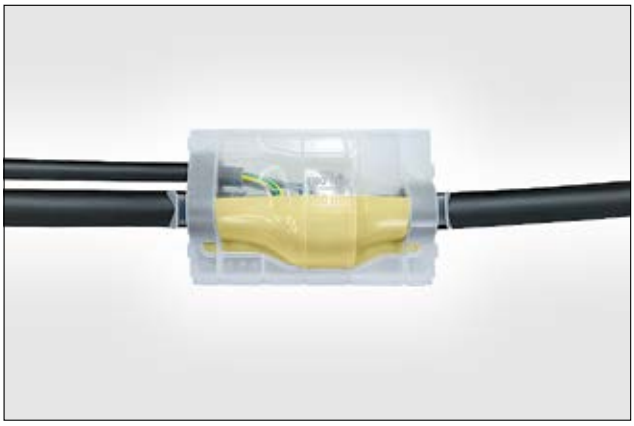
Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings
- Certified according to DIN EN 50393 (corresponds to DIN VDE 0278-393)

Content of Set / Kit

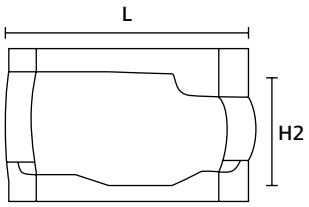
- Cast resin Reliflex, 1950 ml/2379 g, non-toxic
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PAH-2 130/300, house connector set.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS



PAH-2

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-2-130/300-C-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-S	Can	435-00864
PAH-2-130/300-B-SF-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-S	Bag	435-00868
PAH-2-130/300-B-SF	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	none	Bag	435-00855
PAH-2-130/300-C	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	none	Can	435-00858
PAH-2-130/300-C-M	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-M	Can	435-00862
PAH-2-130/300-B-SF-M	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-M	Bag	435-00866

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Parallel branch joint house connections

RELICON PAH-2

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings
- Certified according to DIN EN 50393 (corresponds to DIN VDE 0278-393)

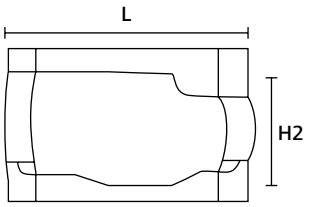
Content of Set / Kit

- Cast resin PUR 33, 1950 ml/2672 g
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)

Parallel branch joint PAH-2 130/300, house connector set.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PAH-2

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-2-130/300-C-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-S	Can	435-00168
PAH-2-130/300-B-SF-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-S	Bag	435-00174
PAH-2-130/300-B-SF	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	none	Bag	435-00154
PAH-2-130/300-C	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	none	Can	435-00160
PAH-2-130/300-C-M	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-M	Can	435-00165
PAH-2-130/300-B-SF-M	27-49	4 x 35	4 x 150	15-33	4 x 6	4 x 70	300.0	130.0	Isicompact-M	Bag	435-00171

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Parallel branch joint house connections

RELICON PAH-3

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

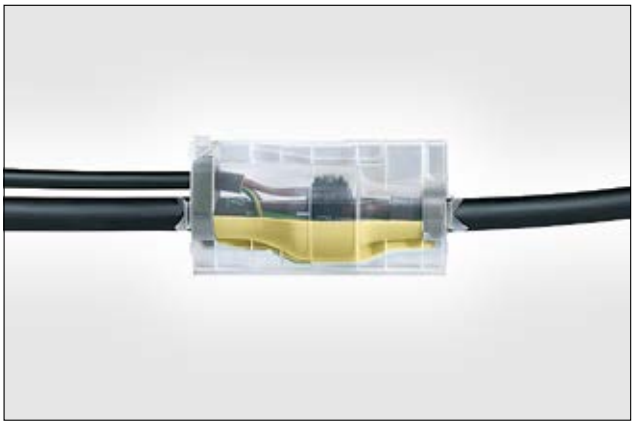
Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings

Content of Set / Kit

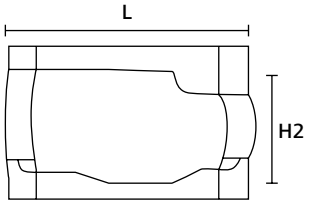
- Cast resin Reliflex, 2800 ml/3416 g, non-toxic
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PAH-3 135/360, house connector set.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS



PAH-3

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-3-135/360-B-SF	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	360.0	135.0	none	Bag	435-00856
PAH-3-135/360-C-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-S	Can	435-00865
PAH-3-135/360-B-SF-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-S	Bag	435-00869
PAH-3-135/360-C	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	none	Can	435-00859
PAH-3-135/360-C-M	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-M	Can	435-00863
PAH-3-135/360-B-SF-M	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-M	Bag	435-00867

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Parallel branch joint house connections

RELICON PAH-3

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings

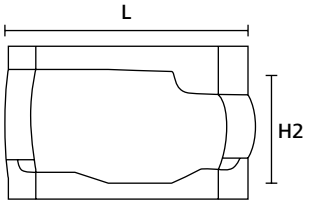
Content of Set / Kit

- Cast resin PUR 33, 2800 ml/3836 g
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)

Parallel branch joint PAH-3 135/360, house connector set.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PAH-3

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-3-135/360-C-S	27-49	4 x 35	4 x 70	15-33	4 x 6	4 x 95	360.0	135.0	Isicompact-S	Can	435-00169
PAH-3-135/360-B-SF-S	27-49	4 x 35	4 x 95	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-S	Bag	435-00175
PAH-3-135/360-B-SF	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	none	Bag	435-00155
PAH-3-135/360-C	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	none	Can	435-00161
PAH-3-135/360-C-M	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-M	Can	435-00166
PAH-3-135/360-B-SF-M	27-49	4 x 35	4 x 185	15-33	4 x 6	4 x 70	360.0	135.0	Isicompact-M	Bag	435-00172

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Parallel branch joint house connections

RELICON PAH-4

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

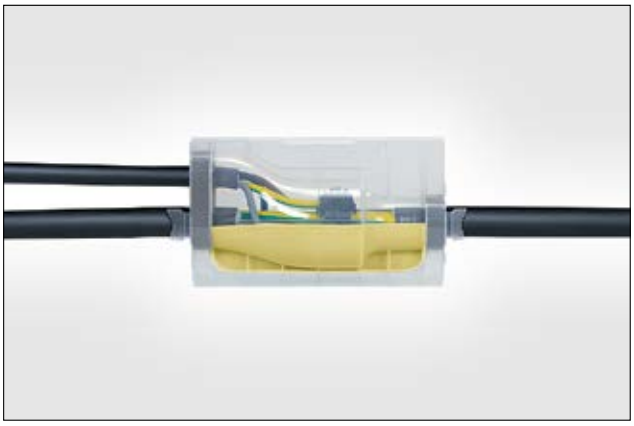
Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings

Content of Set / Kit

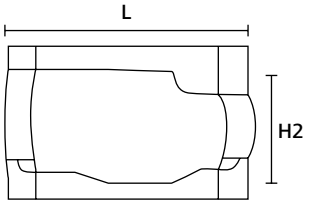
- Cast resin Reliflex, 3900 ml/4758 g, non-toxic
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PAH-4 140/420, house connector set.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS



PAH-4

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-4-140/420-B-SF	27-58	4 x 70	4 x 240	15-49	4 x 70	4 x 240	420.0	140.0	none	Bag	435-00857
PAH-4-140/420-C	27-58	4 x 70	4 x 240	15-49	4 x 70	4 x 240	420.0	140.0	none	Can	435-00860

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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CAT RELICON

Parallel branch joint house connections

RELICON PAH-4

The parallel branch joint PAH is a universal straight-through and branch joint. Suitable as single branch joint with commercial branch clamping rings. For polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

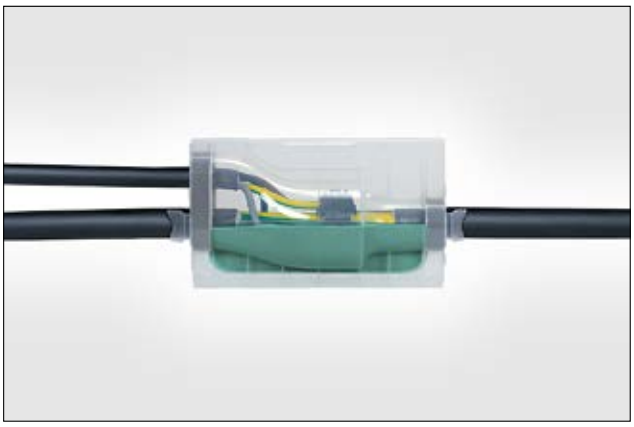
Application: In low-voltage electrical networks as branch joint for building connections. Underground, submerged, outdoor, indoor.

Features and Benefits

- Impact-proof, transparent moulding shell
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- SF-system
- Joint can be cast under influence of water
- Immediately ready for use
- Suitable for all compact branch clamping rings

Content of Set / Kit

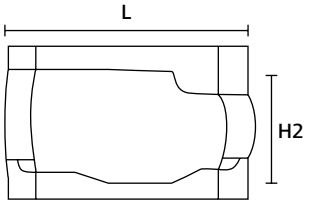
- Cast resin PUR 33, 3900 ml/5343 g
- In a two-chamber pouch or in cans
- Transparent moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, cable kit, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PAH-4 140/420, house connector set.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PAH-4

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min	Main Cable mm² max	Ø Branch Cable	Branch Cable mm² min	Branch Cable mm² max	Length (L)	Height (H2)	Connector	Pack	Article-No.
PAH-4-140/420-B-SF	27-58	4 x 70	4 x 240	15-49	4 x 70	4 x 240	420.0	140.0	none	Bag	435-00156
PAH-4-140/420-C	27-58	4 x 70	4 x 240	15-49	4 x 70	4 x 240	420.0	140.0	none	Can	435-00162

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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CAT RELICON

Parallel branch joint

RELICON PA-11

The parallel branch joint PA is a universal straight-through and branch joint. Depending on the connector, it can be used for single and double branches. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

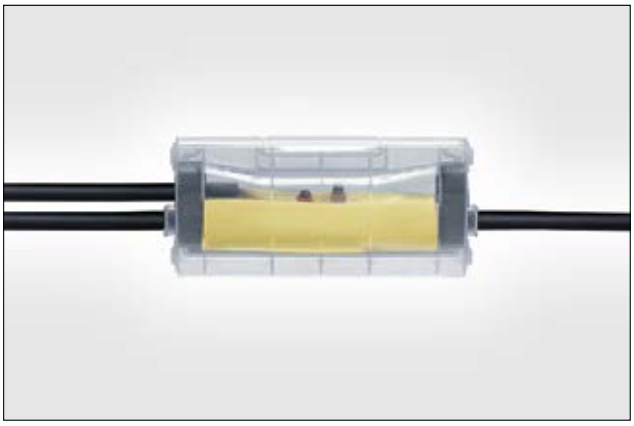
Application: In low-voltage electrical networks as well as for signal and communication cables. For power supply lines for outdoor lighting and for cable repairs. Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- One-piece, impact-proof, transparent moulding shell
- Captive lids
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Immediately ready for use

Content of Set / Kit

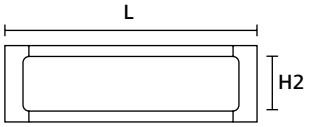
- Cast resin Reliflex, non-toxic
- In a two-chamber pouch or in cans
- Transparent, one-piece moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PA-11 58/230.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS



PA-11

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Pack	Article-No.
PA-11-58/230-B-SF	13-21	4 x 1.5	5 x 10	13-21	4 x 1.5	5 x 10	230.0	58.0	490 ml / 598 g	Bag	435-00850
PA-11-58/230-C	13-21	4 x 1.5	5 x 10	13-21	4 x 1.5	5 x 10	230.0	58.0	490 ml / 598 g	Can	435-00853

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Parallel branch joint

RELICON PA-11

The parallel branch joint PA is a universal straight-through and branch joint. Depending on the connector, it can be used for single and double branches. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

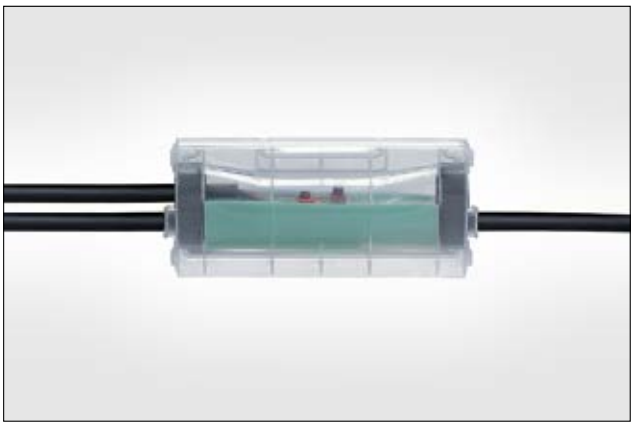
Application: In low-voltage electrical networks as well as for signal and communication cables. For power supply lines for outdoor lighting and for cable repairs. Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- One-piece, impact-proof, transparent moulding shell
- Captive lids
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Immediately ready for use

Content of Set / Kit

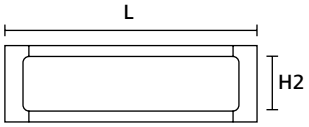
- Cast resin PUR 33
- In a two-chamber pouch or in cans
- Transparent, one-piece moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PA-11 58/230.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PA-11

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min	Main Cable mm² max	Ø Branch Cable	Branch Cable mm² min	Branch Cable mm² max	Length (L)	Height (H2)	Resin Quantity	Pack	Article-No.
PA-11-58/230-B-SF	13-21	4 x 1.5	5 x 10	13-21	4 x 1.5	5 x 10	230.0	58.0	490 ml / 671 g	Bag	435-00150
PA-11-58/230-C	13-21	4 x 1.5	5 x 10	13-21	4 x 1.5	5 x 10	230.0	58.0	490 ml / 671 g	Can	435-00157

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Parallel branch joint

RELICON PA-12

The parallel branch joint PA is a universal straight-through and branch joint. Depending on the connector, it can be used for single and double branches. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: In low-voltage electrical networks as well as for signal and communication cables. For power supply lines for outdoor lighting and for cable repairs. Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- One-piece, impact-proof, transparent moulding shell
- Captive lids
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Immediately ready for use

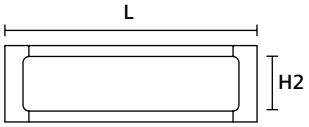
Content of Set / Kit

- Cast resin Reliflex, non-toxic
- In a two-chamber pouch or in cans
- Transparent, one-piece moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)

Parallel branch joint PA-12 75/300.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS



PA-12

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Pack	Article-No.
PA-12-75/300-B-SF	17-29	4 x 16	5 x 25	13-22	4 x 6	5 x 16	300.0	75.0	955 ml / 1165 g	Bag	435-00851
PA-12-75/300-C	17-29	4 x 16	5 x 25	13-22	4 x 6	5 x 16	300.0	75.0	955 ml / 1165 g	Can	435-00854

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Parallel branch joint

RELICON PA-12

The parallel branch joint PA is a universal straight-through and branch joint. Depending on the connector, it can be used for single and double branches. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: In low-voltage electrical networks as well as for signal and communication cables. For power supply lines for outdoor lighting and for cable repairs. Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- One-piece, impact-proof, transparent moulding shell
- Captive lids
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Immediately ready for use

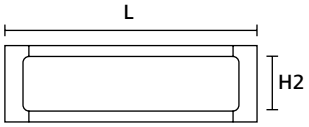
Content of Set / Kit

- Cast resin PUR 33
- In a two-chamber pouch or in cans
- Transparent, one-piece moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)

Parallel branch joint PA-12 75/300.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PA-12

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Pack	Article-No.
PA-12-75/300-B-SF	17-29	4 x 16	5 x 25	13-22	4 x 6	5 x 16	300.0	75.0	955 ml / 1308 g	Bag	435-00151
PA-12-75/300-C	17-29	4 x 16	5 x 25	13-22	4 x 6	5 x 16	300.0	75.0	955 ml / 1308 g	Can	435-00158

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Parallel branch joint

RELICON PA-13

The parallel branch joint PA is a universal straight-through and branch joint. Depending on the connector, it can be used for single and double branches. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: In low-voltage electrical networks as well as for signal and communication cables. For power supply lines for outdoor lighting and for cable repairs. Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- One-piece, impact-proof, transparent moulding shell
- Captive lids
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Immediately ready for use

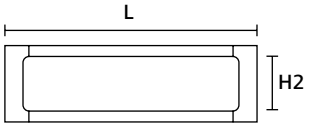
Content of Set / Kit

- Cast resin Reliflex, non-toxic
- In a two-chamber pouch or in cans
- Transparent, one-piece moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)

Parallel branch joint PA-13 95/420.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS



PA-13

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Pack	Article-No.
PA-13-95/420-B-SF	27-35	4 x 10	5 x 35	21-30	4 x 25	5 x 35	420.0	95.0	2240 ml / 2733 g	Bag	435-00852
PA-13-95/420-C	27-35	4 x 10	5 x 35	21-30	4 x 25	5 x 35	420.0	95.0	2240 ml / 2733 g	Can	435-00861

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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CAT RELICON

Parallel branch joint

RELICON PA-13

The parallel branch joint PA is a universal straight-through and branch joint. Depending on the connector, it can be used for single and double branches. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

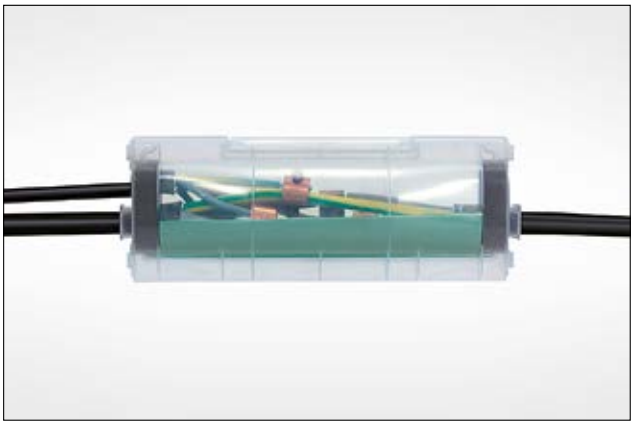
Application: In low-voltage electrical networks as well as for signal and communication cables. For power supply lines for outdoor lighting and for cable repairs. Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- One-piece, impact-proof, transparent moulding shell
- Captive lids
- Compact, optimized dimensions
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Immediately ready for use

Content of Set / Kit

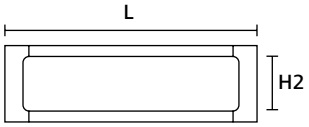
- Cast resin PUR 33
- In a two-chamber pouch or in cans
- Transparent, one-piece moulding shell
- Foam seal, protective gloves, emery cloth
- Cleaning cloth, installation instructions
- SF-nozzle (two-chamber pouch)
- Mixing stick (can)



Parallel branch joint PA-13 95/420.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



PA-13

Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min	Main Cable mm² max	Ø Branch Cable	Branch Cable mm² min	Branch Cable mm² max	Length (L)	Height (H2)	Resin Quantity	Pack	Article-No.
PA-13-95/420-B-SF	27-35	4 x 10	5 x 35	21-30	4 x 25	5 x 35	420.0	95.0	2240 ml / 3069 g	Bag	435-00152
PA-13-95/420-C	27-35	4 x 10	5 x 35	21-30	4 x 25	5 x 35	420.0	95.0	2240 ml / 3069 g	Can	435-00163

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
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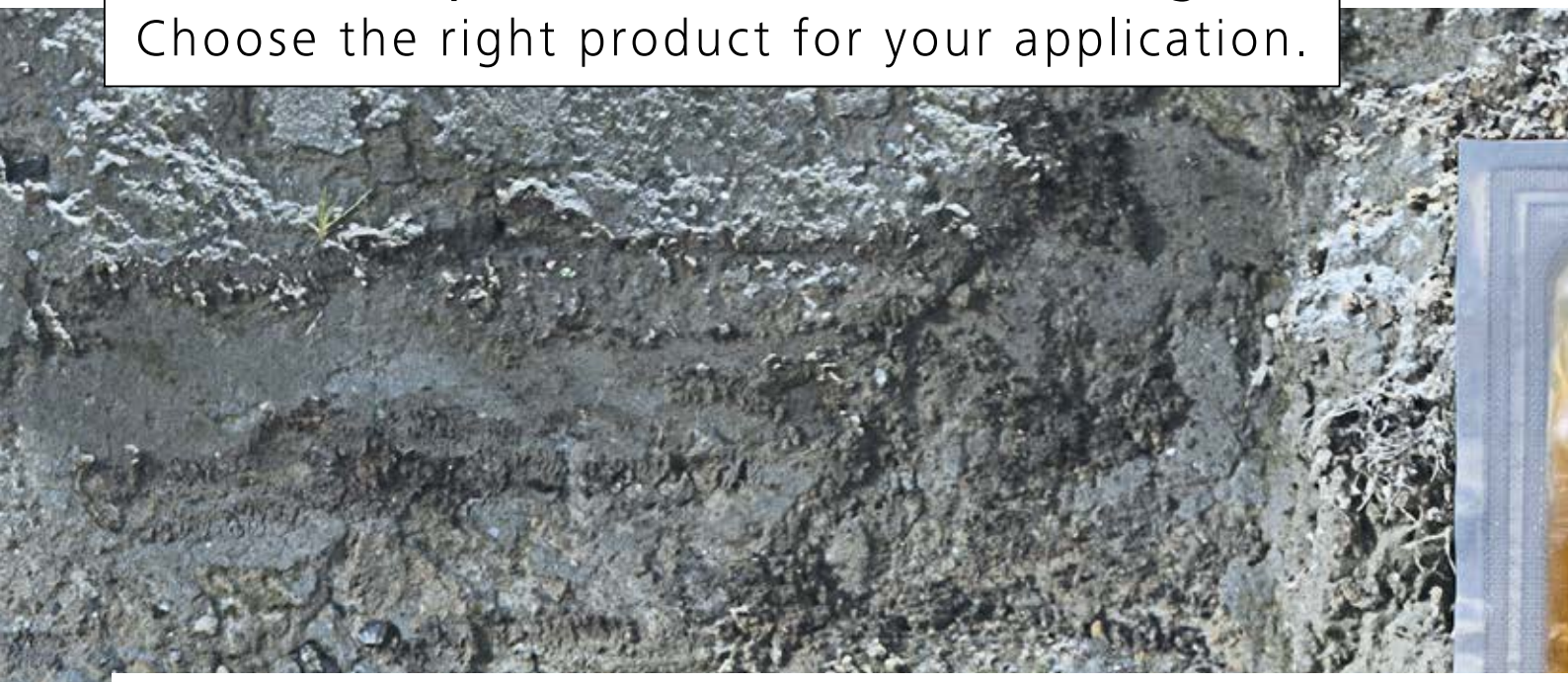
10/2016 031-93417
CAT RELICON

RELICON expertise for cast resins and gels: Choose the right product for your application.



PRODUCT FAMILY	Pot Life	Shore Hardness A	Shore Hardness D	Operating Temperature	Dielectric Strength	Shelf Life	Exothermicity max.	Removable
Two-component polyurethane cast resin								
RELICON PUR 33	43 min. 5 °C, 15 min. 23 °C, 8 min. 40 °C	–	65±5	-25 °C to +120 °C	38 kV/mm	48 months	+71 °C	–
RELICON PUR 66	43 min. 5 °C, 15 min. 23 °C, 8 min. 40 °C	–	68±5	-25 °C to +120 °C	38 kV/mm	48 months	+71 °C	–
RELICON PUR 661 LP	130 min. 5 °C, 40 min. 23 °C, 20 min. 40 °C	–	56±5	-25 °C to +120 °C	>20 kV/mm	48 months	+58 °C	–
RELICON PUR 771	50 min. 5 °C, 15 min. 23 °C, 5 min. 40 °C	–	56±5	-25 °C to +130 °C	>20 kV/mm	36 months	+71 °C	–
RELICON PUR 44 Flex	35 min. 5 °C, 15 min. 23 °C, 6 min. 40 °C	60±5	–	-25 °C to +120 °C	20 kV/mm	24 months	+80 °C	–
RELICON PUR 112 FR	50 min. 5 °C, 15 min. 23 °C, 5 min. 40 °C	–	80±5	-25 °C to +130 °C	>20 kV/mm	36 months	+71 °C	–
Two-component cold casting compound								
RELICON Reliflex	40 min. 5 °C, 20 min. 23 °C, 10 min. 40 °C	20±5	–	-40 °C to +90 °C	>10 kV/mm	36 months	––	Yes
Two-component epoxy resin								
RELICON EP 64	32 min. 5 °C, 13 min. 23 °C, 8 min. 35 °C	–	80±5	-20 °C to +140 °C	>20 kV/mm	48 months	+140 °C	–
RELICON EP 20	8 min. 40 °C, 18 min. 23 °C, 35 min. 5 °C	–	70±5	-20 °C to +140 °C	>20 kV/mm	48 months	+100 °C	–
Two-component gel								
RELICON KH 100	40 min. 23 °C	–	–	-40 °C to +90 °C	>20 kV/mm	18 months	–	Yes
RELICON KH 67	40 min. 23 °C	–	–	-40 °C to +90 °C	>15 kV/mm	36 months	–	Yes
Two-component silicone gel								
RELICON Religel	10 min. 23 °C	–	–	-40 °C to +140 °C	>20 kV/mm	Unlimited	–	Yes

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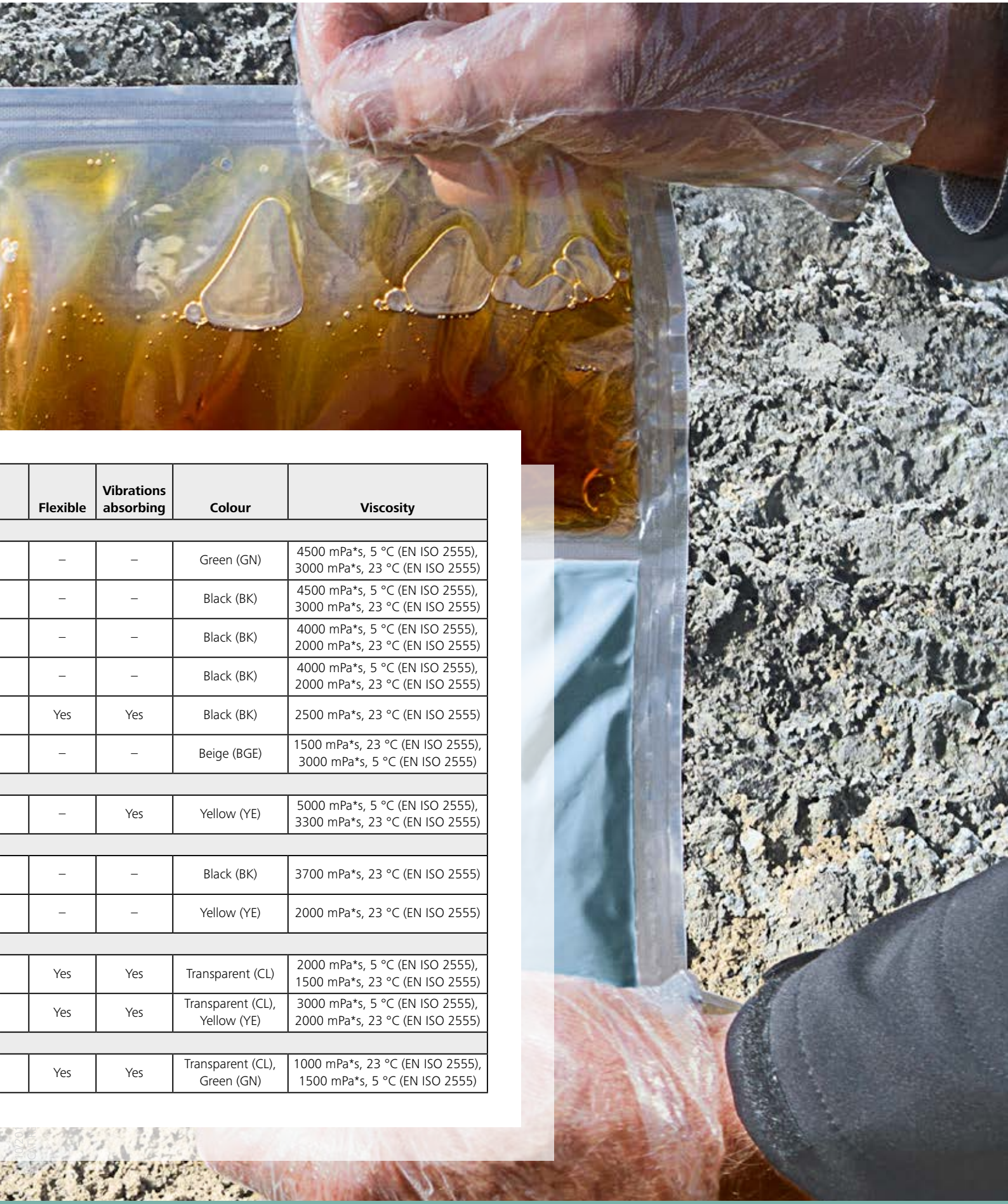

	Flexible	Vibrations absorbing	Colour	Viscosity
	–	–	Green (GN)	4500 mPa*s, 5 °C (EN ISO 2555), 3000 mPa*s, 23 °C (EN ISO 2555)
	–	–	Black (BK)	4500 mPa*s, 5 °C (EN ISO 2555), 3000 mPa*s, 23 °C (EN ISO 2555)
	–	–	Black (BK)	4000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
	–	–	Black (BK)	4000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
	Yes	Yes	Black (BK)	2500 mPa*s, 23 °C (EN ISO 2555)
	–	–	Beige (BGE)	1500 mPa*s, 23 °C (EN ISO 2555), 3000 mPa*s, 5 °C (EN ISO 2555)
	–	Yes	Yellow (YE)	5000 mPa*s, 5 °C (EN ISO 2555), 3300 mPa*s, 23 °C (EN ISO 2555)
	–	–	Black (BK)	3700 mPa*s, 23 °C (EN ISO 2555)
	–	–	Yellow (YE)	2000 mPa*s, 23 °C (EN ISO 2555)
	Yes	Yes	Transparent (CL)	2000 mPa*s, 5 °C (EN ISO 2555), 1500 mPa*s, 23 °C (EN ISO 2555)
	Yes	Yes	Transparent (CL), Yellow (YE)	3000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
	Yes	Yes	Transparent (CL), Green (GN)	1000 mPa*s, 23 °C (EN ISO 2555), 1500 mPa*s, 5 °C (EN ISO 2555)

Two-component polyurethane cast resin

RELICON PUR 33

The RELICON PUR 33 cast resin has been created for the electrical insulation and mechanical protection of cable connections in low-voltage electrical networks. Also suitable as mechanical and moisture protection on medium-voltage cable connections.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Colour changes from blue to green whilst mixing
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Two-component polyurethane cast resin PUR 33.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Mixing Ratio (weight)	100:26
Exothermicity max.	+71 °C
Gel Time	48 min. 5 °C, 20 min. 23 °C, 9 min. 40 °C
Pot Life	43 min. 5 °C, 15 min. 23 °C, 8 min. 40 °C
Dielectric Strength	38 kV/mm
Viscosity	4500 mPa*s, 5 °C (EN ISO 2555), 3000 mPa*s, 23 °C (EN ISO 2555)
Impact Strength	26 kJ/m²
Shore Hardness D	65±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

HF ✓ RoHS ✓

TYPE	Resin Quantity	Article-No.
Resin-33-B-SF	95 ml / 130 g	435-00250
	240 ml / 329 g	435-00251
	490 ml / 671 g	435-00252
	655 ml / 897 g	435-00253
	955 ml / 1308 g	435-00254
	1140 ml / 1562 g	435-00255
	1445 ml / 1980 g	435-00256
	1640 ml / 2247 g	435-00257
	1950 ml / 2672 g	435-00258
	2045 ml / 2802 g	435-00259

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Two-component polyurethane cast resin

RELICON PUR 66

The RELICON PUR 66 cast resin has been created for the electrical insulation and mechanical protection of cable connections in medium-voltage electrical networks.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Two-component polyurethane cast resin PUR 66.

MATERIAL	Polyurethane resin 66 (PUR66)
Colour	Black (BK)
Operating Temperature	-25 °C to +120 °C
Mixing Ratio (weight)	100:26
Exothermicity max.	+71 °C
Gel Time	48 min. 5 °C, 9 min. 40 °C
Pot Life	43 min. 5 °C, 15 min. 23 °C, 8 min. 40 °C
Dielectric Strength	38 kV/mm
Viscosity	4500 mPa*s, 5 °C (EN ISO 2555), 3000 mPa*s, 23 °C (EN ISO 2555)
Impact Strength	26 kJ/m²
Shore Hardness D	68±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

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TYPE	Resin Quantity	Article-No.
Resin-66-B-SF	95 ml / 130 g	435-00300
	165 ml / 226 g	435-00301
	220 ml / 301 g	435-00302
	240 ml / 329 g	435-00303
	400 ml / 548 g	435-00304
	455 ml / 623 g	435-00305
	490 ml / 671 g	435-00306
	655 ml / 897 g	435-00307
	955 ml / 1308 g	435-00308
	1140 ml / 1562 g	435-00309
	1445 ml / 1980 g	435-00310
	1640 ml / 2247 g	435-00311
	1950 ml / 2672 g	435-00312
	2045 ml / 2802 g	435-00313

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Two-component polyurethane cast resin

RELICON PUR 771

The RELICON PUR 771 cast resin has been created for the electrical insulation and mechanical protection of cable connections in low-voltage electrical networks. Also suitable as mechanical and moisture protection on medium-voltage cable connections.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Two-component polyurethane cast resin PUR 771.

MATERIAL	Polyurethane resin 771 (PUR771)
Colour	Black (BK)
Operating Temperature	-25 °C to +130 °C
Mixing Ratio (weight)	100:22
Exothermicity max.	+71 °C
Gel Time	70 min. 5 °C, 20 min. 23 °C, 8 min. 40 °C
Pot Life	50 min. 5 °C, 15 min. 23 °C, 5 min. 40 °C
Dielectric Strength	>20 kV/mm
Viscosity	4000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
Impact Strength	16 kJ/m²
Shore Hardness D	56±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

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TYPE	Resin Quantity	Article-No.
Resin-771-B-SF	95 ml / 130 g	435-01214
	240 ml / 329 g	435-01215
	490 ml / 671 g	435-01216
	655 ml / 897 g	435-01217
	955 ml / 1308 g	435-01218
	1140 ml / 1562 g	435-01219
	1445 ml / 1980 g	435-01220
	1640 ml / 2247 g	435-01221
	1950 ml / 2672 g	435-01222
	2045 ml / 2802 g	435-01223

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Two-component polyurethane cast resin

RELICON PUR 44 Flex

The RELICON PUR 44 Flex cast resin has been created for the electrical insulation, mechanical protection and repair of flexible cable connections for the low-voltage electrical network.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Excellent flow properties, cold curing
- Resistance to moisture and atmospheric corrosion
- Vibration absorbing, abrasion and chemical resistant
- UV, ageing and weather resistant
- Reelable and permanently flexible, even at sub-zero temperatures
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Two-component polyurethane cast resin PUR 44 Flex.

MATERIAL	Polyurethane resin 44 Flex (PUR44 Flex)
Colour	Black (BK)
Operating Temperature	-25 °C to +120 °C
Mixing Ratio (weight)	100:22
Exothermicity max.	+80 °C
Gel Time	35 min. 5 °C, 15 min. 23 °C, 6 min. 40 °C
Pot Life	35 min. 5 °C, 15 min. 23 °C, 6 min. 40 °C
Dielectric Strength	20 kV/mm
Viscosity	2500 mPa*s, 23 °C (EN ISO 2555)
Shore Hardness A	60±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	24 months

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TYPE	**Resin Quantity**	**Article-No.**
Resin-44Flex-B-SF	95 ml / 114 g	435-00350
	165 ml / 198 g	435-00351
	220 ml / 264 g	435-00352
	240 ml / 288 g	435-00353
	400 ml / 480 g	435-00354
	455 ml / 546 g	435-00355
	490 ml / 588 g	435-00356
	655 ml / 786 g	435-00357
	955 ml / 1146 g	435-00358
	1140 ml / 1368 g	435-00359
	1445 ml / 1734 g	435-00360
	1640 ml / 1968 g	435-00361
	1950 ml / 2340 g	435-00362
	2045 ml / 2454 g	435-00363

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

Two-component polyurethane cast resin

RELICON PUR 112 FR

The RELICON PUR 112 FR cast resin is flame retardant and is used in areas with increased fire protection requirements. It has been created for electrical insulation and mechanical protection of cable connections in the low- and medium-voltage range.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Flame retardant
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Two-component polyurethane cast resin PUR 112 FR.

MATERIAL	Polyurethane resin 112 FR (PUR112 FR)
Colour	Beige (BGE)
Operating Temperature	-25 °C to +130 °C
Mixing Ratio (weight)	100:22
Exothermicity max.	+71 °C
Gel Time	70 min. 5 °C, 20 min. 23 °C, 8 min. 40 °C
Pot Life	50 min. 5 °C, 15 min. 23 °C, 5 min. 40 °C
Dielectric Strength	>20 kV/mm
Viscosity	1500 mPa*s, 23 °C (EN ISO 2555), 3000 mPa*s, 5 °C (EN ISO 2555)
Impact Strength	> 8 kJ/m²
Shore Hardness D	80±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

HF ✓ RoHS ✓

TYPE	Resin Quantity	Article-No.
Resin-112FR	95 ml / 144 g	435-01100
	165 ml / 251 g	435-01101
	220 ml / 334 g	435-01102
	240 ml / 365 g	435-01103
	400 ml / 608 g	435-01104
	455 ml / 692 g	435-01105
	490 ml / 745 g	435-01106
	655 ml / 996 g	435-01107
	955 ml / 1452 g	435-01108
	1140 ml / 1733 g	435-01109
	1445 ml / 2196 g	435-01110
	1640 ml / 2493 g	435-01111
	1950 ml / 2964 g	435-01112
	2045 ml / 3108 g	435-01113

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Two-component epoxy resin

RELICON EP 64

The RELICON EP 64 epoxy resin has been created for use in low- and medium-voltage electrical networks, especially in the chemical and oil refining industry.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- Very high mechanical, thermal and chemical resistance
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Halogen free

Two-component epoxy resin EP64.

MATERIAL	Epoxy resin EP64 (EP64)
Colour	Black (BK)
Operating Temperature	-20 °C to +140 °C
Mixing Ratio (weight)	100:36
Exothermicity max.	+140 °C
Pot Life	32 min. 5 °C, 13 min. 23 °C, 8 min. 35 °C
Dielectric Strength	>20 kV/mm
Viscosity	3700 mPa*s, 23 °C (EN ISO 2555)
Shore Hardness D	80±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

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TYPE	Resin Quantity	Article-No.
Resin-64-B-SF	95 ml / 107 g	435-00400
	165 ml / 186 g	435-00401
	220 ml / 249 g	435-00402
	240 ml / 271 g	435-00403
	400 ml / 452 g	435-00404
	455 ml / 514 g	435-00405
	490 ml / 554 g	435-00406
	655 ml / 740 g	435-00407
	955 ml / 1079 g	435-00408
	1140 ml / 1288 g	435-00409
	1445 ml / 1633 g	435-00410
	1640 ml / 1853 g	435-00411
	1950 ml / 2204 g	435-00412
	2045 ml / 2311 g	435-00413

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

Two-component epoxy resin

RELICON EP 20

The RELICON EP 20 epoxy resin has been created for use in low- and medium-voltage electrical networks. It is cold curing, highly impact-resistant and the low exothermic reaction makes it possible to cast even larger volumes.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Low exothermic reaction
- Very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- Very high thermal and chemical resistance
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Halogen free

Two-component epoxy resin EP20.

MATERIAL	Epoxy resin EP20 (EP20)
Colour	Yellow (YE)
Operating Temperature	-20 °C to +140 °C
Mixing Ratio (weight)	100:65
Exothermicity max.	+100 °C
Pot Life	8 min. 40 °C, 18 min. 23 °C, 35 min. 5 °C
Dielectric Strength	>20 kV/mm
Viscosity	2000 mPa*s, 23 °C (EN ISO 2555)
Shore Hardness D	70±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

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TYPE	Resin Quantity	Article-No.
Resin-20-B-SF	95 ml / 103 g	435-00450
	165 ml / 178 g	435-00451
	220 ml / 238 g	435-00452
	240 ml / 259 g	435-00453
	400 ml / 432 g	435-00454
	455 ml / 491 g	435-00455
	490 ml / 529 g	435-00456
	655 ml / 707 g	435-00457
	955 ml / 1031 g	435-00458
	1140 ml / 1231 g	435-00459
	1445 ml / 1561 g	435-00460
	1640 ml / 1771 g	435-00461
	1950 ml / 2106 g	435-00462
	2045 ml / 2209 g	435-00463

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Two-component cold casting compound

RELICON Reliflex

The RELICON Reliflex cast resin is a non-toxic cold casting compound based on hydrocarbon resins for the low-voltage electrical networks. The very hydrophobic resin has been created for electrical insulation and moisture protection of cable connections. After curing, Reliflex is extremely resistant to moisture and has excellent insulating properties.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Colour changes from beige to yellow whilst mixing
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Fast gelling, curing without developing heat
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- Resistance to moisture and atmospheric corrosion
- Soft elastic, vibration absorbing, removable
- Non-toxic, free of silicone and isocyanate
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste

Two-component cold casting compound Reliflex.

MATERIAL	Cold sealing compound Reliflex (Reliflex)
Colour	Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Mixing Ratio (weight)	100:40
Exothermicity max.	-
Gel Time	45 min. 5 °C, 25 min. 23 °C, 14 min. 40° C
Pot Life	40 min. 5 °C, 20 min. 23 °C, 10 min. 40 °C
Dielectric Strength	>10 kV/mm
Viscosity	5000 mPa*s, 5 °C (EN ISO 2555), 3300 mPa*s, 23 °C (EN ISO 2555)
Shore Hardness A	20±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

RoHS

TYPE	Resin Quantity	Article-No.
Resin-RF-B-SF	95 ml / 116 g	435-00550
	165 ml / 201 g	435-00551
	220 ml / 268 g	435-00552
	240 ml / 293 g	435-00553
	400 ml / 488 g	435-00554
	455 ml / 555 g	435-00555
	490 ml / 598 g	435-00556
	655 ml / 799 g	435-00557
	955 ml / 1165 g	435-00558
	1140 ml / 1391 g	435-00559
	1445 ml / 1763 g	435-00560
	1640 ml / 2001 g	435-00561
	1950 ml / 2379 g	435-00562
	2045 ml / 2495 g	435-00563

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

Two-component polyurethane sealing mastic

RELICON PUR DS

The RELICON PUR DS cast resin is a chemically thixotropic, universal polyurethane sealing mastic. It is ideal for sealing wall feed-throughs as well as other filling and sealing applications.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Colour changes from black to grey whilst mixing
- Safe-Filling system (SF)
- Very thixotropic and high stability
- Gas and water tight to 1.5 bar
- Excellent adhesion to concrete and stone. Also on polymeric cables and wires made of PVC, XLPE, PE, EPR
- Soft elastic
- Spatula included
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

System solutions for wall ducts can be found on pages: 58, 59.

Two-component polyurethane cast resin PUR DS.

MATERIAL	Polyurethane (PUR)
Colour	Grey (GY)
Operating Temperature	-25 °C to +110 °C
Mixing Ratio (weight)	100:52
Pot Life	15 min. 23 °C
Shore Hardness D	30±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	24 months

HF ✓ RoHS ✓

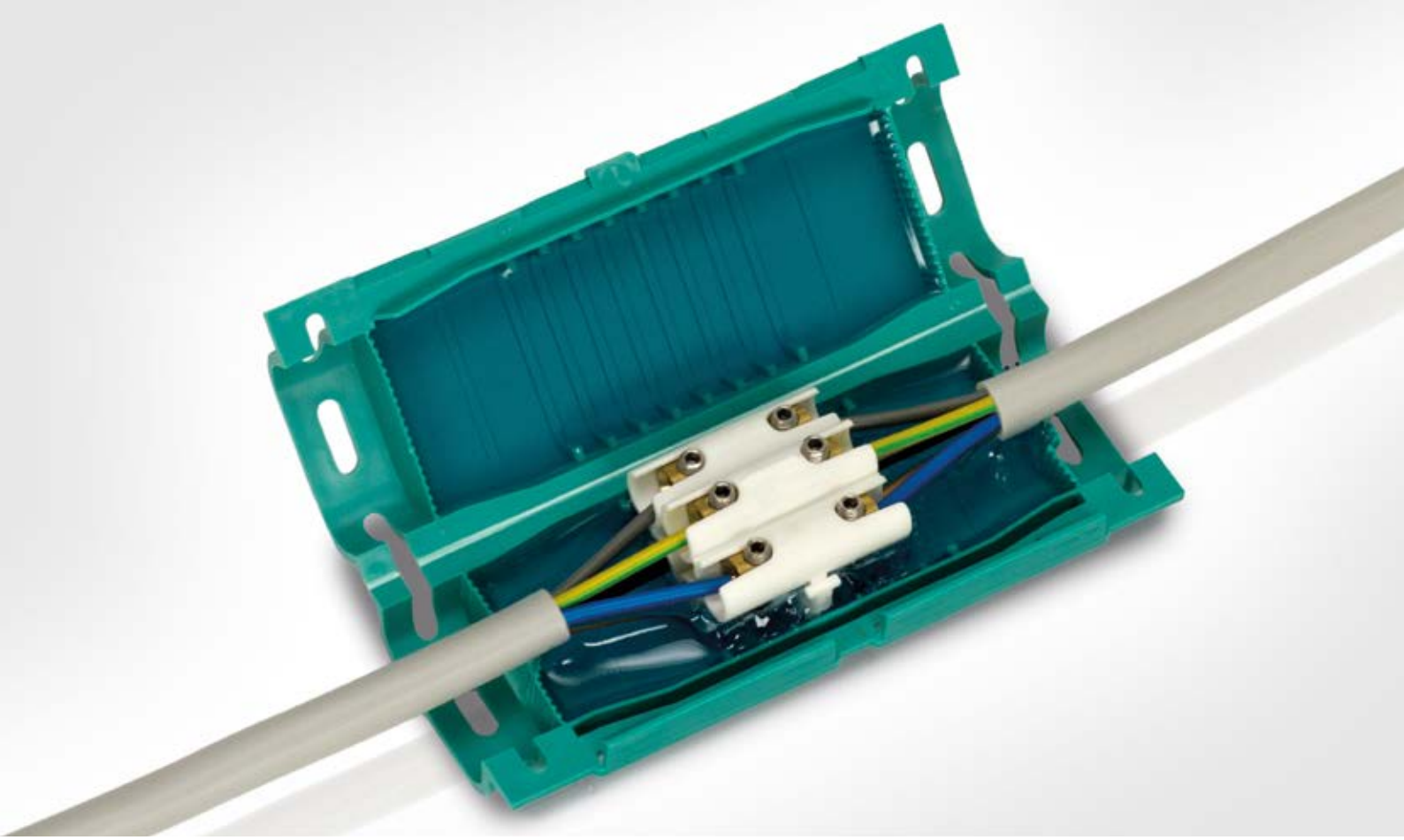
TYPE	Resin Quantity	Article-No.
Resin-DS-B-SF	250 ml / 275 g	435-00600
	490 ml / 539 g	435-00601

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

RELICON by HellermannTyton



Gel Technology

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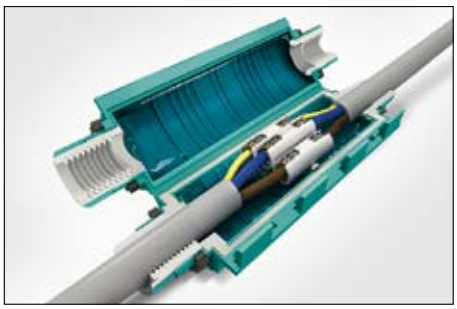
RELICON Reliseal gel cable joints: for connections under extreme conditions

Reliseal gel cable joints are designed for reliability and robustness under the toughest conditions. They are tested to IP68 (waterproof to 10 meters) and feature an integrated strain relief mechanism that ensures maximum protection, insulation and sealing of cable connections in extreme environments.

Ready-to-use out of the box, fitting is quick and easy.



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CAT RELICON

Gel cable joint with connector

RELICON Reliseal

Reliseal gel cable joints are suitable for cable connections under extreme conditions, outdoors and underground. They are universal straight-through joints with a protection class IP68 and consist of a solid polypropylene shell (PP) filled with RELICON gel. They can be used for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR, etc. Reliseal fulfils the highest requirements for electrical installations and offers mechanical protection, insulation and sealing in one work step. The installer saves time and requires no special installation tools.

Application: In low-voltage electrical networks as straight-through joint. Underground, submerged, outdoor, indoor and in wiring ducts.

Reliseal gel cable joint, available in three sizes.

Features and Benefits

- Moulding shell: one piece, re-openable, impact-proof, flame retardant
- Perfect strain relief provided by patented cable gland system
- Protection class IP68, 10 m
- Filled with RELICON non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready to assembly

Gel cable joint Reliseal V 56.

Gel cable joint Reliseal V 510.

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Cable gland system for strain relief and transverse waterproofing
- Adapter seal for different cable diameters
- Installation instructions
- Connector

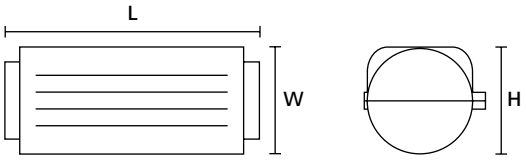
Gel cable joint Reliseal V 525.

With connector!

IP68, 10 meter

MATERIAL	Polypropylene (PP), Silicone (SI)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS



Reliseal V

TYPE	Main Cable mm² min	Main Cable mm² max	Length (L)	Width (W)	Height (H)	Article-No.
Reliseal V56	3 x 2.5	5 x 6	190.0	60.0	47.0	435-01660
Reliseal V510	3 x 4	5 x 10	235.0	69.0	49.0	435-01661
Reliseal V525	3 x 10	5 x 25	310.0	88.0	60.0	435-01662

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

RELICON by HellermannTyton

RELICON Relilight gel cable joints: specially designed for the needs of lighting installers to connect and branch small conductor cross-sections

Relilight gel cable joints are designed for safely connecting and branching off the small cable cross-sections now commonly used in lighting installations. Relilight's compact dimensions, integrated strain relief and IP68 safety class make it an ideal product for reliable connections in confined spaces and under wet or dusty conditions.

RELICON Relilight is tested to DIN EN 60998-2-1:2004. It is resistant to ageing and weathering and withstands temperatures from -30 to +130 °C.

10/2016 _031-93417
CAT RELICON

Gel cable joint with connector

RELICON Relilight

Relilight gel cable joints are designed for light installations, especially LED lighting. They are tested according to DIN EN 60998-2-1: 2004 and offer IP68 protection class. The moulding shells are also flame retardant. Depending on the connector type, Relilight can be used either for straight-through or as branch joints. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc. The silicone-based RELICON gel in the Relilight cable joints provides insulation, sealing and mechanical protection in one step. Furthermore, they reduce the workload and total cost of installation.

Application: In low-voltage electrical networks as straight-through or branch joints, e.g. for outdoor light installations, underground, submerged, outdoor, indoor and in wiring ducts.

Relilight gel cable joint.

MATERIAL	Polyamide 6.6 V0 (PA66V0), Silicone (SI)
Colour	Black (BK)
Operating Temperature	-30 °C to +130 °C
Shelf Life	Unlimited

RoHS

Features and Benefits

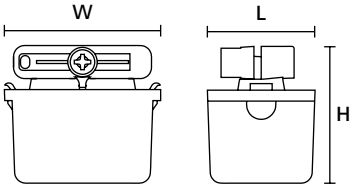
- Moulding shell: two piece, black, re-openable, with strain relief, flame retardant, protection class IP68, 1.3 m
- Filled with Relicon non-toxic gel, high dielectric strength >1kV,
- No mixing, ready to assembly
- UV, ageing and weather resistant
- Compact dimensions, with connector
- Unlimited shelf life
- Certified according to DIN EN 60998-2-1:2004

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief (not for No. 435-01650)
- Installation instructions, connector block, screws
- Wire guide (only No. 435-01654)

With connector block!

IP68, 1.3 meter



TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V2.75 I1	4.8-6	2 x 0.35	2 x 0.75	-	-	250V, 6A	44.0	18.0	17.5	435-01650
Relilight V32.5 I2	6.5-12	3 x 0.5	3 x 2.5	-	-	250V, 16A	100.0	24.0	29.0	435-01651
Relilight V32.5 P1	6.5-12	3 x 0.5	3 x 2.5	3 x 0.5	3 x 2.5	250V, 16A	105.0	44.0	24.0	435-01655
Relilight V41.5 P1	6.5-12	4 x 0.5	4 x 1.5	4 x 0.5	4 x 1.5	250V, 16A	105.0	44.0	24.0	435-01656
Relilight V61.5 I2	6.5-12	6 x 0.5	6 x 1.5	-	-	12V - 24V	100.0	24.0	29.0	435-01652
Relilight V34 P2	7.5-16	3 x 1.5	3 x 4	3 x 1.5	3 x 4	450V, 25A	138.0	78.0	35.0	435-01657
Relilight V36 P2	7.5-16	3 x 1.5	3 x 6	3 x 1.5	3 x 6	450V, 25A	138.0	78.0	35.0	435-01658
Relilight V31.5 U1	8.0-10	3 x 0.5	3 x 1.5	-	-	250V, 16A	38.0	42.5	29.5	435-01653
Relilight V41 U1	8.0-10	4 x 0.5 / 6 x 0.35	4 x 1 / 6 x 0.5	-	-	12V - 24V	38.0	42.5	29.5	435-01654

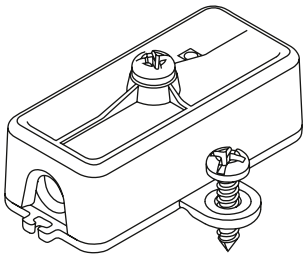
All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

RELICON Relilight V 2.75 I1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector block 2 x 0.35 mm² to 2 x 0.75 mm²
- Screw



Relilight V 2.75 I1

Gel cable joint Relilight V 2.75 I1.

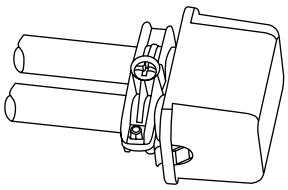
TYPE	Ø Main Cable	Main Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V2.75 I1	4.8-6	2 x 0.35	2 x 0.75	250V, 6A	44.0	18.0	17.5	435-01650

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

RELICON Relilight V 31.5 U1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector block 3 x 0.5 mm² to 3 x 1.5 mm²
- Screw



Relilight V 31.5 U1

Gel cable joint Relilight V 31.5 U1.

TYPE	Ø Main Cable	Main Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V31.5 U1	8.0-10	3 x 0.5	3 x 1.5	250V, 16A	38.0	42.5	29.5	435-01653

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

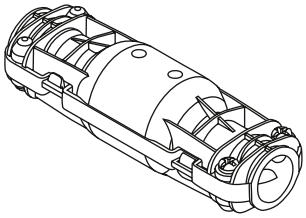
For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

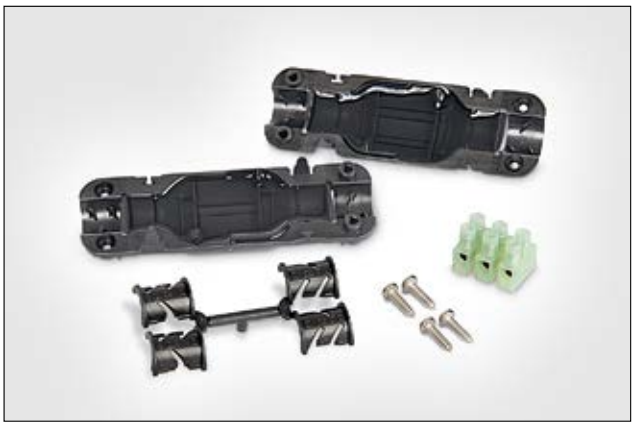
RELICON Relilight V 32.5 I2

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 3 x 0.5 mm² to 3 x 2.5 mm²
- Screws



Relilight V 61.5 I2



Gel cable joint Relilight V 32.5 I2.

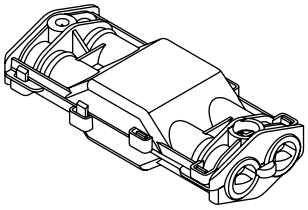
TYPE	Ø Main Cable	Main Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V32.5 I2	6.5-12	3 x 0.5	3 x 2.5	250V, 16A	100.0	24.0	29.0	435-01651

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

RELICON Relilight V 32.5 P1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 3 x 0.5 mm² to 3 x 2.5 mm²
- Screws



Relilight V 32.5 P1

Gel cable joint Relilight V 32.5 P1.

TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V32.5 P1	6.5-12	3 x 0.5	3 x 2.5	3 x 0.5	3 x 2.5	250V, 16A	105.0	44.0	24.0	435-01655

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

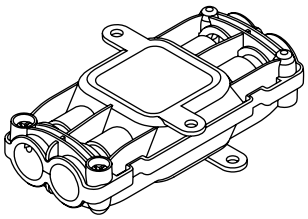
10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

RELICON Relilight V 34 P2

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 3 x 1.5 mm² to 3 x 4 mm²
- Screws



Relilight V 34 P2

Gel cable joint Relilight V 34 P2.

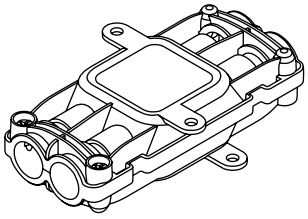
TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V34 P2	7.5-16	3 x 1.5	3 x 4	3 x 1.5	3 x 4	450V, 25A	138.0	78.0	35.0	435-01657

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

RELICON Relilight V 36 P2

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 3 x 1.5 mm² to 3 x 6 mm²
- Screws



Relilight V 36 P2

Gel cable joint Relilight V 36 P2.

TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V36 P2	7.5-16	3 x 1.5	3 x 6	3 x 1.5	3 x 6	450V, 25A	138.0	78.0	35.0	435-01658

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

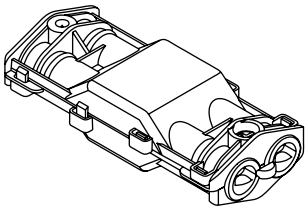
For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

RELICON Relilight V 41.5 P1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 4 x 0.5 mm² to 4 x 1.5 mm²
- Screws



Relilight V 41.5 P1

Gel cable joint Relilight V 41,5 P1.

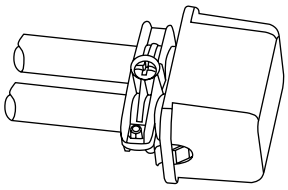
TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V41.5 P1	6.5-12	4 x 0.5	4 x 1.5	4 x 0.5	4 x 1.5	250V, 16A	105.0	44.0	24.0	435-01656

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

RELICON Relilight V 41 U1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector block 4 x 0.5 mm² to 4 x 1 mm²
- Wire guide 6 x 0.35 mm² to 6 x 0.5 mm² (solder)
- Screw



Relilight V 41 U1

Gel cable joint Relilight V 41 U1.

TYPE	Ø Main Cable	Main Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V41 U1	8.0-10	4 x 0.5 / 6 x 0.35	4 x 1 / 6 x 0.5	12V - 24V	38.0	42.5	29.5	435-01654

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

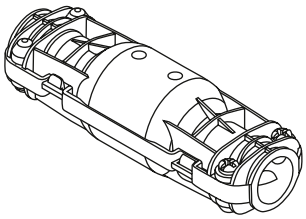
10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

RELICON Relilight V 61.5 I2

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 6 x 0.5 mm² to 6 x 1.5 mm²
- Screws



Relilight V 61.5 I2

Gel cable joint Relilight V 61.5 I2.

TYPE	Ø Main Cable	Main Cable mm² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V61.5 I2	6.5-12	6 x 0.5	6 x 1.5	12V - 24V	100.0	24.0	29.0	435-01652

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

RELICON by HellermannTyton

RELICON Relifix gel cable joints: quick and effortless application

RELICON gel cable joints, which are used for cable connections above and below ground, consist of a robust polypropylene sleeve plus RELICON gel. RELICON gel products comply with the highest electrical engineering requirements and provide mechanical protection, insulation and sealing in a single work step. The fitter saves time and needs no special installation tools. RELICON gel cable joints can be used up to conductor temperatures of +90 °C. The material is non-hazardous and has an unlimited shelf-life. RELICON gel cable joints are suitable for straight-through or branch connections. They are available in different sizes, covering the common range of conductor cross sections. The products comply with the major European standards DIN EN 50393 (corresponding to DIN VDE 0278).

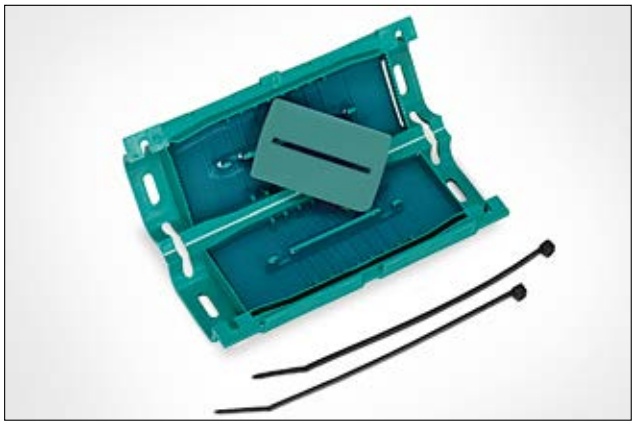
10/2016 031-93417
CAT RELICON

Gel cable joint without connector

RELICON Relifix

RELICON Relifix gel technology offers several advantages. It is quick and easy to install. The moulding shells are provided with a film hinge and are made from thick-walled, tough and impact resistant polypropylene (PP). The Relicon gel in the shells insulates and seals the complete connection as the joint is closed. Depending on the connector type, Relifix can be used as a universal straight-through or branch joint. It is suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc.

Application: In low-voltage electrical networks as straight-through and/ or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.



Gel cable joint Relifix 410, 416.

Features and Benefits

- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- Certified according to DIN EN 50393 (corresponds to DIN VDE 0278-393)

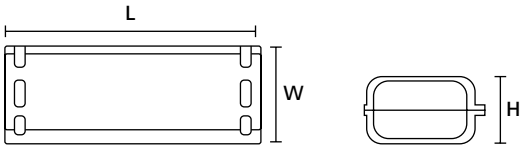
MATERIAL	Polypropylene (PP), Silicone (SI)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Separator plate
- Cable ties

Without connector block!



Relifix 410, 416

TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Length (L)	Width (W)	Height (H)	Article-No.
Relifix 410	9-20	3 x 1.5	4 x 10	3 x 1.5	4 x 2.5	146.0	55.0	35.0	435-00652
Relifix 416	9-22	3 x 1.5	4 x 16	3 x 1.5	4 x 4	180.0	69.0	40.0	435-00653

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

10/2016 031-93417
CAT RELICON

Gel cable joint with connector

RELICON Relifix V

RELICON Relifix gel technology offers several advantages. It is quick and easy to install. The moulding shells are provided with a film hinge and are made from thick-walled, tough and impact resistant polypropylene (PP). The Relicon gel in the shells insulates and seals the complete connection as the joint is closed. Depending on the connector type, Relifix can be used as a universal straight-through or branch joint. It is suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc.

Application: In low-voltage electrical networks as straight-through and/ or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.

Gel cable joint Relifix V in use as a cable repair.

Features and Benefits

- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready for assembly
- Certified according to DIN EN 50393 (corresponds to DIN VDE 0278-393)

Gel cable joint Relifix V 31,5.

Gel cable joint Relifix V 150.

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector
- Cable ties
- Allen key (not for type V31,5)

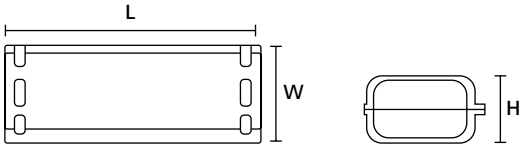
Gel cable joint Relifix V 56, V516.

Gel cable joint Relifix V 525.

With connector block!

MATERIAL	Polypropylene (PP), Silicone (SI)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS



Relifix V

TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Length (L)	Width (W)	Height (H)	Article-No.
Relifix V150	9-16	1 x 10	1 x 50	1 x 2.5	1 x 6	86.0	47.0	27.0	435-00651
Relifix V31.5	9-16	3 x 0.5	3 x 2.5	-	-	86.0	47.0	27.0	435-00650
Relifix V56	9-20	3 x 1.5	5 x 6	-	-	146.0	55.0	35.0	435-00654
Relifix V516	9-22	3 x 6	5 x 16	-	-	180.0	69.0	40.0	435-00655
Relifix V525	9-30	3 x 16	5 x 25	-	-	240.0	75.0	48.0	435-00656

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

10/2016 031-93417
CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Gel cable joint with connector

RELICON Relifix VY

RELICON Relifix gel technology offers several advantages. It is quick and easy to install. The moulding shells are provided with a film hinge and are made from thick-walled, tough and impact resistant polypropylene (PP). The Relicon gel in the shells insulates and seals the complete connection as the joint is closed. Depending on the connector type, Relifix can be used as a universal straight-through or branch joint. It is suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc.

Application: In low-voltage electrical networks as straight-through and/ or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.

Relicon Relifix VY gel cable joint.

Features and Benefits

- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready for assembly
- Certified according to DIN EN 50393 (corresponds to DIN VDE 0278-393)

Gel cable joint Relifix V 135Y.

Gel cable joint Relifix V 506Y.

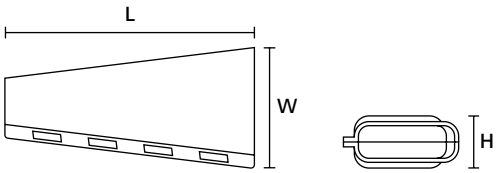
Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector
- Cable ties
- Allen key

Gel cable joint Relifix V 525Y.

With connector block!

MATERIAL	Polypropylene (PP), Silicone (SI)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited



Relifix VY

RoHS

TYPE	Ø Main Cable	Main Cable mm² min - max		Branch Cable mm² min - max		Length (L)	Width (W)	Height (H)	Article-No.
Relifix V 135Y	9-16	1 x 10	1 x 35	1 x 2.5	1 x 25	145.0	70.0	32.0	435-00657
Relifix V 506Y	9-20	3 x 6	5 x 6	3 x 2.5	5 x 6	220.0	110.0	53.0	435-00658
Relifix V 525Y	9-30	3 x 16	5 x 25	3 x 2.5	5 x 25	260.0	130.0	65.0	435-00659

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Gel accessories

RELICON Relifix ZE

Relifix ZE is an optional accessory providing strain relief when using cable joints Relifix 416, Relifix V516 and Relifix V525. Suitable for conductor cross-sections from 6 mm² to 25 mm².

Features and Benefits

- Releasable strain relief
- Quick and easy installation
- Only for Relifix 416, V516, V525
- For conductor cross-sections of 6 -25 mm²

Content of Set / Kit

- 2 Relifix ZE each with two fixing screws
- Installation instructions

TYPE	Article-No.
Relifix ZE	435-00700

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Gel accessory Reliflix ZE.

MATERIAL	Polypropylene (PP)
Colour	Grey (GY)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS

For product specific approvals please contact us under www.HellermannTyton.com

RELICON by HellermannTyton

RELICON two-component gels: individually dosable – quick to handle

RELICON two-component gels offer excellent insulating properties, good chemical resistance and excellent resistance to moisture.

Versatile use – for example encapsulating electronic components – the product is quick to handle and can be easily dosed according to individual requirements.

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Two-component gel

RELICON KH 67

RELICON KH 67 is a transparent, removable, saltwater resistant, flexible two-component gel based on hydrocarbon resins. It is especially suitable for use with junction boxes in low-voltage networks, located in a humid area or in the ground. After curing, RELICON KH 67 is characterised by its excellent resistance to moisture and very good insulating properties as well as good chemical resistance.

Application: Electrical insulation and moisture protection in the low-voltage networks. Particularly suitable for filling of cable junction boxes.

Features and Benefits

- A practical, transparent two-chamber pouch
- Safe-Filling system (SF)
- Excellent flow properties
- Soft elastic, vibration absorbing, removable
- Outstanding insulating properties
- Cures without developing heat
- Saltwater resistant
- Non-toxic, free of silicone and isocyanate
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Silicon free!

Two-component gel KH 67.

MATERIAL	Gel KH67 (KH67)
Colour	Transparent (CL), Yellow (YE)
Operating Temperature	-40 °C to +90 °C
Mixing Ratio (weight)	100:67
Pot Life	40 min. 23 °C
Density	0.95 g/cm³, 20 °C (DIN EN ISO 2811-2)
Dielectric Strength	>15 kV/mm
Viscosity	3000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
Storage Temperature	+4 °C to +40 °C
Shelf Life	36 months

HF ✓ RoHS ✓

TYPE	Pack Cont.	Article-No.
Gel-67-B-SF	180 ml	435-00800
	250 ml	435-00801
	600 ml	435-00802
	750 ml	435-00803
	1,200 ml	435-00804

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

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For product specific approvals please contact us under www.HellermannTyton.com

Two-component silicone gel

RELICON Religel

RELICON Religel is a transparent, elastic two-component silicone gel. It is delivered in practical transparent bottles or canisters. It is particularly suited to fill junction boxes in low-voltage applications. After curing, RELICON Religel gives excellent resistance to moisture, has high insulating properties and very good chemical resistance.

Application: Electrical insulation and moisture protection for low-voltage applications, particularly suitable for insulating cables and wires in junction boxes.

Features and Benefits

- Bottles or canisters incl. measuring cup and mixing stick
- Homogenous mixture indicated by green-coloured component B
- Can be used flexibly, in smaller quantities, mixing ratio 1:1
- Excellent flow properties
- Soft elastic, vibration absorbing, removable
- Outstanding insulating properties
- Non-toxic, free of isocyanate
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Two-component silicone gel Religel.

Two-component silicone gel Religel.

MATERIAL	Silicone gel Religel (SIG)
Colour	Transparent (CL), Green (GN)
Operating Temperature	-40 °C to +140 °C
Mixing Ratio (weight)	100:100
Gel Time	20 min. 23 °C
Pot Life	10 min. 23 °C
Density	0.97 g/cm³, 20 °C (DIN EN ISO 2811-2)
Dielectric Strength	>20 kV/mm
Viscosity	1000 mPa*s, 23 °C (EN ISO 2555), 1500 mPa*s, 5 °C (EN ISO 2555)
Storage Temperature	+4 °C to +40 °C
Shelf Life	Unlimited

HF ✓ RoHS ✓

TYPE	Pack Cont.	Article-No.
Religel	1,000 ml	435-00750
	10,000 ml	435-00751

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Two-component gel

RELICON KH 100

RELICON KH 100 is a transparent, removable, saltwater resistant, flexible two-component gel based on hydrocarbon resins in trade standard cartridges. It is especially suitable for use with junction boxes in the low-voltage range, located in a humid area or in the ground. After curing, RELICON KH 100 is characterised by its excellent resistance to moisture and very good insulating properties as well as good chemical resistance.

Application: Electrical insulation and moisture protection for the low-voltage networks. Particularly suitable for filling of cable junction boxes.

Features and Benefits

- Cartridge with mixing nozzle for use with standard cartridge applicator gun
- Excellent flow properties
- Soft elastic, vibration absorbing, removable
- Outstanding insulating properties
- Cures without developing heat
- Saltwater resistant
- Non-toxic, free of silicone and isocyanate
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free

Silicon free!

Two-component gel KH 100.

MATERIAL	Gel KH100 (KH100)
Colour	Transparent (CL), Orange (OG)
Operating Temperature	-40 °C to +90 °C
Mixing Ratio (weight)	1:1
Pot Life	40 min. 23 °C
Density	0.95 g/cm³, 20 °C (DIN EN ISO 2811-2)
Dielectric Strength	>20 kV/mm
Viscosity	2000 mPa*s, 5 °C (EN ISO 2555), 1500 mPa*s, 23 °C (EN ISO 2555)
Storage Temperature	+4 °C to +40 °C
Shelf Life	18 months

HF ✓ RoHS ✓

TYPE	Pack Cont.	Article-No.
Gel-100 Mixing-Nozzle	10 pcs.	435-00806
Gel-100	250 ml	435-00805
	600 ml	435-00807

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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HelaTape.
The Tape-Team.

A professional team of electrical and technical tapes for bundling, insulating, fixing, sealing and marking.

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Accessories

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Hand cleaning tissues

RELICON Reliclean

RELICON Reliclean is an antibacterial, degreasing and quickly drying hand cleaning tissue. Suitable especially for workshops, industry and areas where hands and surfaces are strongly soiled. Ideal for cleaning heavily soiled hands, tools and equipment. Removes e.g. polyurethane, grease, oils, glue, bitumen, wax, soot, ink, sealants, paints, brake dust, coal dust etc.

Cleaning cloths Reliclean.

Features and Benefits

- Tissue size 27 x 31 cm
- Strong one-step cleaning action
- Easily removes stubborn dirt
- Binds dirt without leaving any residue
- Reliclean restores natural oils and dries quickly
- Tissue are biodegradable
- Antibacterial, non-toxic and non-irritating
- Free of harmful substances

TYPE	Pack Cont.	Article-No.
Reliclean	35 pcs.	435-01600
	70 pcs.	435-01601

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Centering sealing foam for wall feed-throughs

RELICON WSHEZ

The RELICON WSHEZ self-adhesive sealing foam is made for centering the WSHE heat shrinkable wall feed-throughs for building walls.

Application: For centering RELICON WSHE wall feed-through in combination with RELICON PUR DS.

Self-adhesive sealing foam for wall ducts.

Features and Benefits

- Material: Polyester-foam, self-adhesive
- Compressible to 90%,
- Compressive strength 2.8 -4.2 kPa (ISO 3386/1)
- Permeability: Water, gas, air
- Content: Set of sealing-foam (2 pcs), installation instructions
- Use multiple sets for larger wall feed-throughs

MATERIAL	Polyester (PET)
Colour	Grey (GY)
Operating Temperature	-25 °C to +80 °C
Tensile Strength	85 MPa

System solutions for wall ducts can be found on pages: 36, 59.

RoHS

TYPE	Width (W)	Pack Cont.	Article-No.
WSHEZ	30.0	2 pcs.	435-10254

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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CAT RELICON

Heat shrinkable wall for feed-throughs

RELICON WSHE

The RELICON WSHE heat shrinkable wall feed-through is designed to protect all types of cables and conduits through building walls. It is also the perfect solution to seal against gas and moisture of conduits, wires and cables.

Features and Benefits

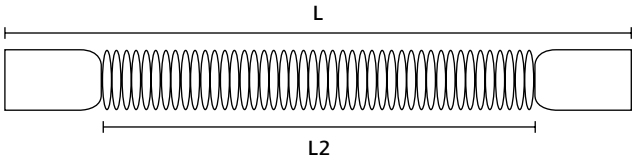
- High mechanical strength, compact dimensions, adhesive lined
- Resistant to chemicals, UV, aging and weather resistant

System solutions for wall ducts can be found on pages: 36, 58.

Heat shrinkable wall feed-through WSHE.

MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +110 °C
Minimum Shrink Temperature	+120 °C

RoHS



WSHE

TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Length (L2)	Pack Cont.	Article-No.
WSHE 14/10	14	10	800.0	500	1 pc.	435-10255
WSHE 23/12	23	12	800.0	500	1 pc.	435-10256
WSHE 28/16	28	16	800.0	500	1 pc.	435-10257
WSHE 38/20	38	20	800.0	500	1 pc.	435-10258
WSHE 48/19	48	19	800.0	500	1 pc.	435-10259
WSHE 86/45	86	45	800.0	500	1 pc.	435-10260

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

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CAT RELICON

For product specific approvals please contact us under www.HellermannTyton.com

Connectors

Compression connector, tin-plated, with central buttmark for copper conductors

Galvanised compression connectors are suitable for stranded and solid copper conductors and provided with central buttmarks for precise conductor insertion.

Features and Benefits

- Suitable for copper conductors
- Optimal material and compress properties because of the annealed material
- Precise end machining for easy cable insertion
- Tin-plated connector body
- With central buttmarks for precise core insertion

Compression connector, tin-plated, with central buttmark for copper conductors

TYPE	Inside Ø (ID)	Outside Ø (OD)	Length (L)	Pack Cont.	Article-No.
Compression connector 1.5	1.8	3.3	25.0	1 pc.	435-01450
Compression connector 2.5	2.3	4.2	25.0	1 pc.	435-01451
Compression connector 4	3	5	25.0	1 pc.	435-01452
Compression connector 6	3.5	6.5	25.0	1 pc.	435-01453
Compression connector 10	4.5	7	30.0	1 pc.	435-01454
Compression connector 16	5.5	8.5	35.0	1 pc.	435-01455
Compression connector 25	7	10	40.0	1 pc.	435-01456
Compression connector 35	8.5	12	45.0	1 pc.	435-01457
Compression connector 50	10	14	50.0	1 pc.	435-01458
Compression connector 70	12	16.5	55.0	1 pc.	435-01459
Compression connector 95	13.5	18	60.0	1 pc.	435-01460
Compression connector 120	15	19.5	65.0	1 pc.	435-01461
Compression connector 150	16.5	21	70.0	1 pc.	435-01462
Compression connector 185	19	24	75.0	1 pc.	435-01463
Compression connector 240	21	26	85.0	1 pc.	435-01464
Compression connector 300	23.5	29.5	100.0	1 pc.	435-01465
Compression connector 400	27	34	100.0	1 pc.	435-01466

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Connectors

Mechanical connector, tin-plated, with barrier and shear-off bolts for Al and CU conductors

Galvanised mechanical connector provided with barrier and shear-off bolts. Suitable for stranded and solid aluminium and copper conductors in all kind of cable accessories. They also comply with DIN 4740 requirements for shrinking technology.

Features and Benefits

- For connecting different conductor cross-sections
- Suitable for aluminium and copper conductors
- Tin-plated connector body with barrier and shear-off bolts

Mechanical connectors with barrier.

TYPE	Conductor Size Range mm²	Ø D	Length (L)	Nut Size (NS)	Pack Cont.	Article-No.
Mechanical connector 1050	10 - 50	18.0	40.0	4	1 pc.	435-01503
Mechanical connector 2595	25 - 95	25.0	55.0	8	1 pc.	435-01504
Mechanical connector 2515	25 - 150	28.0	60.0	8	1 pc.	435-01505
Mechanical connector 9524	95 - 240	35.0	128.0	8	1 pc.	435-01506

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Connectors

Mechanical connector, tin-plated, with blind hole for Al and CU conductors

Galvanised mechanical connector provided with a blind hole and suitable for stranded and solid aluminium and copper conductors in all kind of cable accessories. They also comply with DIN 4740 requirements for shrinking technology.

Features and Benefits

- For connecting different conductor cross-sections
- Suitable for aluminium and copper conductors
- With blind hole for precise conductor insertion
- Tin-plated connector body and hexagon socket screws

Mechanical connectors without barrier.

TYPE	Conductor Size Range mm²	Ø D	Length (L)	Nut Size (NS)	Pack Cont.	Article-No.
Mechanical connector 1506	1.5 - 6	7.0	-	1.5	1 pc.	435-01500
Mechanical connector 1516	1.5 - 16	10.0	30.0	2.5	1 pc.	435-01501
Mechanical connector 635	6 - 35	14.0	40.0	4	1 pc.	435-01502

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

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Connector blocks

RELICON Premium

The connector block is made of transparent polymeric material and assembled with 5 mechanical connectors inside. An allen key is included. The three different sizes are adapted to the right core cross sections and spaces that are needed for each joint. All connectors are suitable for aluminium and copper conductors as well. This makes the connection reliable and easy.

Features and Benefits

- Transparent, polymeric material
- 5 mechanical connectors including allen key
- 3 sizes available
- For Al and Cu conductors

SV-Connector blocks.

TYPE	Conductor Size Range mm²	Article-No.
SV1	1.5 - 6	435-01400
SV2	1.5 - 16	435-01401
SV3	6 - 35	435-01402

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Connectors

Tap connector, uninsulated, for copper conductors

Bright finished tap connector for screwing stranded and solid copper conductors according to VDE 0295 Class 1 and 2.

Features and Benefits

- For connecting conductors to VDE 0295 Class 1 and 2
- One bolt type, bright finished, uninsulated

Tap connectors, uninsulated, for copper conductors.

TYPE	Conductor Size Range mm²	Length (L)	Width (W)	Mounting Screw Type	Pack Cont.	Article-No.
Tap connector 2516	2.5 - 16	16.0	19.5	M5	1 pc.	435-01550
Tap connector 2525	2.5-25.0	18.0	25.0	M6	1 pc.	435-01551
Tap connector 6035	6.0-35.0	20.0	28.0	M7	1 pc.	435-01552
Tap connector 6050	6.0-50.0	24.0	32.5	M7	1 pc.	435-01553
Tap connector 10070	10.0-70.0	24.0	37.5	M8	1 pc.	435-01554
Tap connector 25095	25.0-95.0	31.0	45.0	M10	1 pc.	435-01555

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

For product specific approvals please contact us under www.HellermannTyton.com

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Connectors

Tap connector, insulated, for insulated aluminium and copper conductors

Insulated tap connector for screwing stranded and solid insulated aluminium and copper conductors.

Features and Benefits

- Suitable for insulalted aluminium and copper conductors
- One bolt type, insulated

Tap connector, insulated, for copper and aluminium conductors.

TYPE	Conductor Size Range mm²	Width (W)	Mounting Screw Type	Pack Cont.	Article-No.
Tap connector 1516	1.5-16.0	26.0	M6	1 pc.	435-01557

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Connectors

Tap connector, insulated, for insulated copper conductors

Insulated tap connector for screwing stranded and solid insulated copper conductors.

Features and Benefits

- Suitable for insulated copper conductors
- One bolt type, insulated

Tap connector, insulated, for copper conductors.

TYPE	Conductor Size Range mm²	Width (W)	Mounting Screw Type	Pack Cont.	Article-No.
Tap connector 1510	1.5-10.0	23.0	M5	1 pc.	435-01556

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

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HellermannTyton

Together we can turn the dream of flying into reality

HellermannTyton – Competence for the aerospace industry

You are reinventing aerospace everyday
We are at your side

HellermannTyton

Industry expertise for your demands

With HellermannTyton you have the right specialist at your side. Whether for cable bundling and fastening systems or for cable protection and identification solutions, our components used in the aerospace industry are **certified according to the current aerospace standards.**

In order to constantly reach and maintain this high level, we place great emphasis on keeping up a **continuous interaction with our customers.** We have been working closely with the aerospace industry in this way for **over 40 years**.
The result: **products that are tailored** exactly to the requirements in aircraft construction and new innovations for your individual demands.

Professional service worldwide

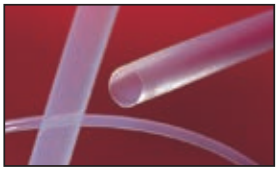
Our network of branch offices and distribution partners around the globe ensures a consistently high level of service, high flexibility and the fast response and delivery times you expect.

- Sales Office
- Manufacturing and Research
- Distribution Centre

Cable ties and fastening systems.

Cable protection.

Identification systems.



Heat-shrink products.

You are always increasing your expertise
We are right there for you

There is hardly any mode of transport that is subjected to such extreme demands like an aeroplane.

With thousands of operating hours, heat, cold, temperature fluctuations and high mechanical stress, it is reassuring to know that HellermannTyton components have fulfilled these demands for over 40 years.

Quality assurance is a top priority at HellermannTyton: material testing in our laboratory facilities.

HellermannTyton

Our quality proof and awareness for your safety.

To get an aircraft into the air safely and back down on the ground, every last detail counts. A lot of **individually designed components** are needed, ideally adapted to their different application fields – from the cockpit and cabin through to the engines and empennage. In this respect, every single part must prove its **long-term reliability.**

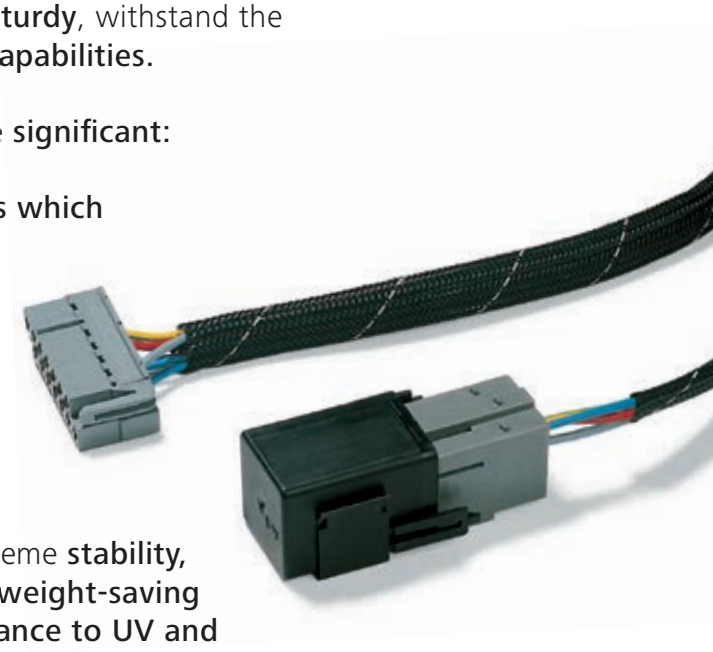
In addition to this there are other criteria which are crucial for use in the aerospace industry: the products must be **light and sturdy**, withstand the highest mechanical loads and display **space-saving capabilities.**

In order to achieve these results, three factors are significant:

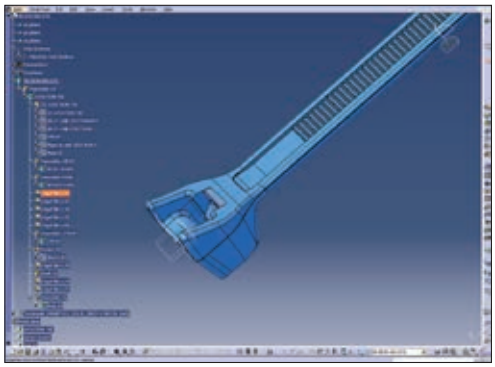
1. **The exclusive use of high quality raw materials which satisfy your and our requirements.**

2. **Precision fabrication at all stages using our in-house tool and mould construction.**

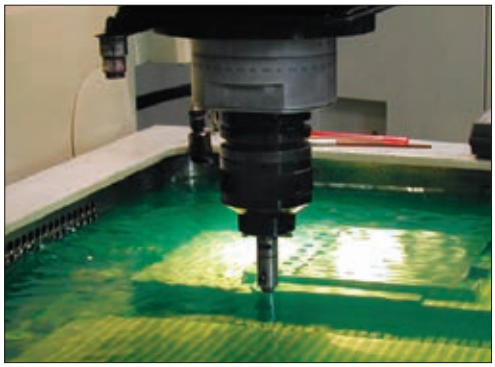
3. **Strict criteria for checking our work processes and also the quality of the range.**



Our products are therefore distinguished by their extreme **stability, durability, resilience, resistance to heat and cold, weight-saving properties, shock resistance, fire safety and resistance to UV and weathering**. Now, and for the future.



New development: cable ties in the application field of the air conditioning ducts.



Innovative strength that pays off for our customers: our in-house tool and mould construction.

You expect the highest standards
We have the corresponding certificates

We ensure certified quality for perfect engineering

Safety is a top priority for you and for us. There is no doubt we follow the specifications and standards for the aerospace industry. Our products are therefore constantly tested in accordance with **the latest national and European standards.** Certified quality for your security and for the certainty of always working at the highest technical level.

HellermannTyton

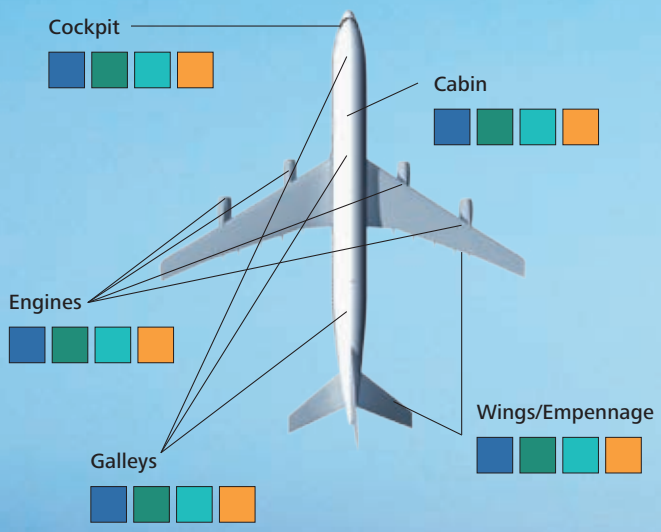
Standards Overview

ASN	Aerospatiale Normalisation	Airbus Group	ASN
BAC	Boeing Aircraft Company Standard	Boeing Corp.	BAC
DAN	Deutsche Airbus Norm	Airbus Group	DAN
DIN	Deutsches Institut für Normung	European Norms	DIN
JN	Particular specification developed for Eurofighter program	Military specification different sub groups	JN
LEA	Liste des Equivalences Approuvés	Dassault	LEA
MS	Military Standard	US Military Standard	MS
NASM	National Aerospace Standard, Metric	AIA – Aerospace Industries Association	NASM
NSA	Norme Sud Aviation	Airbus Group	NSA
PAN	Panavia Aircraft	Panavia	PAN
STD	Standard for Dassault	Dassault	STD

You need the right solution
We will provide it

For every task the best solution.

From cable bundling and cable protection through to identification: HellermannTyton offers you the ideal solution for use in your aeroplanes – either from our existing range or as a customised development.



ASN

ASN-E0043		
Cable Ties Polyamide 6.6 standard	• T-Series in PA66	10
Cable Ties for outdoor use (UV-resistant)	• T-Series in PA66W black	10
Cable Ties for temperatures up to + 105°C (heat stabilised)	• T-Series in PA66HS	11
ASN-E0126		
Heat Shrinkable Tubing 2:1 flexible and coloured	• HFT-A - self extinguishing	12
ASN-E0718		
Heat Shrinkable Tubing 2:1 - PVDF	• TK20	13

BAC

BACS38K		
Cable Ties Polyamide 6.6 standard	• T-Series in PA66 natural	14
Cable Ties for outdoor use (UV-resistant)	• T-Series in PA66W black	14

DAN

DAN218		
Bottle Shapes, VG style	• Helashrink 150 Series, with rib	15
DAN341		
Right-Angle Shapes, VG-Style	• Helashrink 1100 Series, with rib	16
DAN107		
Lacing cord made of glass fibre	• LCHT4D series	17

DIN

DIN EN6049		
NOMEX® braided sleeving	• Helagaine HEGMAN and HEGMANWO	18

JN

JN1000T		
Angled T-Shapes, VG style	• Helashrink 1300 Series, 30° & 45° angle	19
2-Way Outlet Shapes, VG style	• Helashrink 200 Series	19

LEA

LEA		
Bottle Shapes	• Helashrink 100 Series	20
Bottle Shapes, VG style	• Helashrink 150 Series, with rib	21
2-Way Outlet Shapes, VG style	• Helashrink 200 Series	22
Angle Shapes	• Helashrink 1800 Series, with rib, 30°, 45°, 60° angle	22
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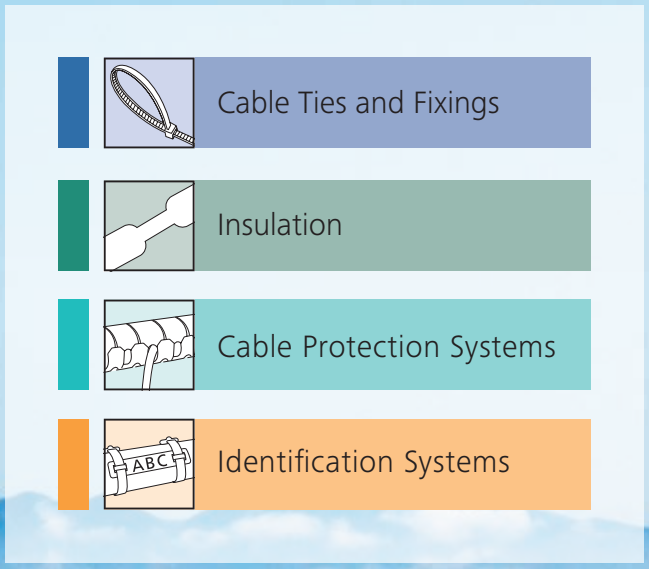
Heat Shrinkable Tubing 2:1 - PVDF	• KYNAR®	24
Heat Shrinkable Tubing 2:1 - Elastomer	• PST-H	25
Heat Shrinkable Tubing - PTFE	• TFE4 4:1	26
Heat Shrinkable Tubing 2:1 - Fluoroelastomer	• Viton®-E	27
Lacing Tapes LTHT	• Lacing tape LTHT2E4BK	28

MS

MS3367		
Cable Ties for outdoor use (UV-resistant)	• T-Series in PA66W black	29
Cable Ties Polyamide 6.6 standard	• T-Series in PA66 natural	29
MS2191		
Aluminium P-Clips	• ALU-P-Clip with / without chloroprene Insert	30

HellermannTyton



MS21266		
Cable Protection for sharp-edged cut-out-sections	• Flexiform Edge Protection grommet strip	31
MS3368		
Identification ties and plates for marking cable bundles	• IT-Ties	32

NASM

NASM21266		
Cable Protection for sharp-edged cut-out-sections	• Flexiform Edge Protection grommet strip	33

NSA

NSA935401		
Cable Ties inside serrated	• T-Series	34
NSA940000		
Cable Ties for temperatures up to + 105°C (heat stabilised)	• T-Series	35
NSA937211		
Heat Shrinkable Tubing 2:1 flexible and coloured	• HFT-A - self extinguishing	36; 37
NSA937494		
Heat Shrinkable Tubing 2:1 - PVDF	• TK20	38
NSA937210		
Heat Shrinkable Tubing - PTFE	• TFE4 4:1	39
NSA939510		
Cable Protection for sharp-edged cut-out-sections	• Flexiform Edge Protection grommet strip	40
NSA8420		
Lacing cord made of polyamide 6	• Lacing cord LCHT1A25NA	41
Lacing cord made of meta-aramide	• Lacing cord LCHT5A30NA	41
Lacing tape made of polyamide 6	• Lacing tape LTHT1B2NA and LTHT1B3NA	42
Lacing tape made of polyester	• Lacing tape LTHT2E4BK	42
Lacing tape made of PTFE	• Lacing tape LTHT3A2NA and LTHT3A4NA	43
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NSA935403		
Silicone band	• SI Band	44
NSA935402		
Identification ties and plates for marking cable bundles	• IT Ties	45

PAN

PAN6481		
Cable Ties for thin-walled bundles	• OS-Series	46
Cable Ties for high temperatures up to +240 °C	• PEEK Ties, outside serrated	47
PAN6493		
Heat Shrinkable Tubing 2:1 flexible and coloured	• HFT-A - self extinguishing	48; 49
PAN6491		
Heat Shrinkable Tubing 2:1 - PVDF	• TK20	50
PAN6480		
Halar® braided sleeving	Helagaine HEGHR	51

STD

STD78750		
Cable Ties for temperatures up to + 105°C (heat stabilised)	• T-Series in PA66HS	52
Cable Ties for higher chemical resistance and temperatures up to +170°C in E/TFE	• T-Series in E/TFE	52

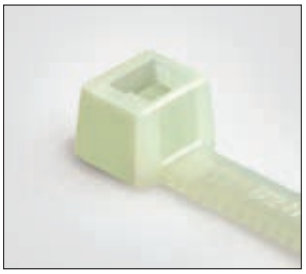
Cable Ties Polyamide 6.6 standard

- **T-Series in PA66**

These cable ties are used for routing, bundling and securing of cables, pipes and hoses.

Features and Benefits

- Avaliable in a wide range of material and sizes
- Made from 100% high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simply to insert due to bent tail

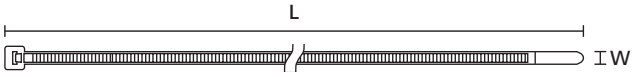


T-Series.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)
Flammability	UL94 V2

ASN **ASN-E0043**

HF ✓ RoHS ✓



T-Series.

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T80R	ASN-E0043-1A0P	4.7	210.0	55.0	355	PA66	Black (BK)	100	2-11	111-01243
T18R	ASN-E0043-4A9P	2.5	100.0	22.0	80	PA66	Natural (NA)	100	2;4-6;8	111-01242

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable Ties for outdoor use (UV-resistant)

- **T-Series in PA66W black**

MATERIAL	Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)
Flammability	UL94 V2

ASN **ASN-E0043**

HF ✓ RoHS ✓

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T80R	ASN-E0043-1C0P	4.7	210.0	55.0	355	PA66W	Black (BK)	100	2-11	111-01244
T80L	ASN-E0043-2C0P	4.7	390.0	110.0	355	PA66W	Black (BK)	100	2-11	111-01245
T150R	ASN-E0043-3C0P	7.6	365.0	100.0	670	PA66W	Black (BK)	100	3;9-12	111-01246
T18R	ASN-E0043-4C0P	2.5	100.0	22.0	80	PA66W	Black (BK)	100	2;4-6;8	111-01247
T30R	ASN-E0043-5C0P	3.5	150.0	35.0	135	PA66W	Black (BK)	100	2;4-6;8	111-01248

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Cable Ties for temperatures up to + 105°C (heat stabilised)

- **T-Series in PA66HS**

ASN **ASN-E0043**

T-Series.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL94 V2

HF ✓ RoHS ✓

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T50L	ASN-E0043-2B0P	4.6	390.0	110.0	225	PA66HS	Black (BK)	100	2-11	111-01272

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.									
2	3	4	5	6	7	8	9	10	11
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Heat Shrinkable Tubing 2:1 flexible and coloured

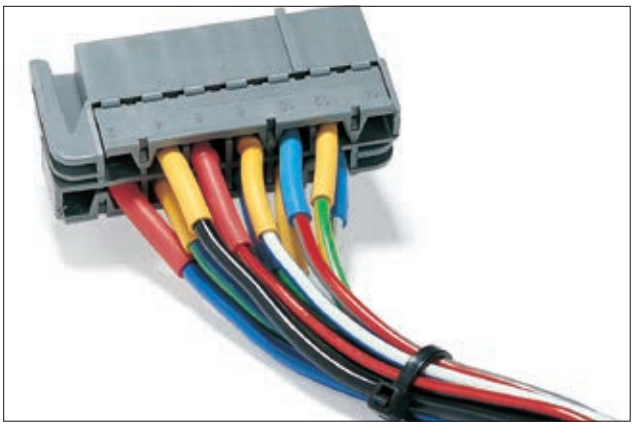
- **HFT-A - self extinguishing**

This high performance thin wall tubing is used extensively for electrical and mechanical protection. It is also well proven for sleeve marking to identify wiring circuits. It shrinks uniformly to form a permanent insulation covering.

The transparent version is used for bundling and cable protection where visual inspection is required. It is often used as a see through protective sleeve over cable markers.

Features and Benefits

- Flexible heat shrink tubing
- Fast shrinking, easy handling, good mechanical strength
- Easy to print on
- Wide range of colours
- Internal diameters up to 4 inches (101.6 mm)
- UL-224 ,CSA listed and VG approved



HFT-A conforms to major standards used in all defence industries.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal change after shrinkage	+5%/-10%
Dielectric Strength	20 kV/mm according to IEC 60684 P2
Flammability	Self extinguishing
Specifications	CSA, DEF STAN 59-97/3, MIL-DTL-23053/5C, NF F 00-608, SAE - AMS - DTL-23053 / 5C, UL224 125 °C 600V, VG 95343

ASN **ASN-E0126**

Heat Shrinkable Tubing 2:1

RoHS

TYPE	Standards	Size (imp.)	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-2.4/1.2	ASN-E0126-01B	3/32 "	2.4	1.2	0.50	400 m	Black (BK)	VG 95343 T05 A 003 A	305-02400
HFT-A-3.2/1.6	ASN-E0126-02B	1/8 "	3.2	1.6	0.50	400 m	Black (BK)	VG 95343 T05 A 004 A	305-03200
HFT-A-4.8/2.4	ASN-E0126-03B	3/16 "	4.8	2.4	0.50	300 m	Black (BK)	VG 95343 T05 A 005 A	305-04800
HFT-A-6.4/3.2	ASN-E0126-04B	1/4 "	6.4	3.2	0.60	300 m	Black (BK)	VG 95343 T05 A 006 A	305-06400
HFT-A-9.5/4.8	ASN-E0126-05B	3/8 "	9.5	4.8	0.60	150 m	Black (BK)	VG 95343 T05 A007 A	305-09500
HFT-A-12.7/6.4	ASN-E0126-06B	1/2 "	12.7	6.4	0.60	100 m	Black (BK)	VG 95343 T05 A 008 A	305-12700
HFT-A-19.0/9.5	ASN-E0126-07B	3/4 "	19.0	9.5	0.80	50 m	Black (BK)	VG 95343 T05 A 009 A	305-19000
HFT-A-25.4/12.7	ASN-E0126-08B	1 "	25.4	12.7	0.90	50 m	Black (BK)	VG 95343 T05 A 010 A	305-25400
HFT-A-38.0/19.0	ASN-E0126-09B	1 "	38.0	19.0	1.00	50 m	Black (BK)	VG 95343 T05 A 011 A	305-38100
HFT-A-76.0/38.0	ASN-E0126-11B	3 "	76.0	38.0	1.30	25 m	Black (BK)	VG 95343 T05 A 013 A	305-76200
HFT-A-2.4/1.2	ASN-E0126-01D	3/32 "	2.4	1.2	0.50	100 m	Red (RD)	VG 95343 T05 A 003 C	305-02402
HFT-A-4.8/2.4	ASN-E0126-03H	3/16 "	4.8	2.4	0.50	75 m	Blue (BU)	VG 95343 T05 A 005 G	305-04806
HFT-A-38.0/19.0	ASN-E0126-09H	1 "	38.0	19.0	1.00	50 m	Blue (BU)	VG 95343 T05 A 011 G	305-38106
HFT-A-50.8/25.4	ASN-E0126-10H	2 "	51.0	25.4	1.10	35 m	Blue (BU)	VG 95343 T05 A 012 G	305-50806
HFT-A-2.4/1.2	ASN-E0126-01L	3/32 "	2.4	1.2	0.50	100 m	White (WH)	VG 95343 T05 A 003 L	305-02409
HFT-A-3.2/1.6	ASN-E0126-02L	1/8 "	3.2	1.6	0.50	100 m	White (WH)	VG 95343 T05 A 004 L	305-03209
HFT-A-4.8/2.4	ASN-E0126-03L	3/16 "	4.8	2.4	0.50	75 m	White (WH)	VG 95343 T05 A 005 L	305-04809
HFT-A-6.4/3.2	ASN-E0126-04L	1/4 "	6.4	3.2	0.60	75 m	White (WH)	VG 95343 T05 A 006 L	305-06409
HFT-A-9.5/4.8	ASN-E0126-05L	3/8 "	9.5	4.8	0.60	50 m	White (WH)	VG 95343 T05 A007 L	305-09509

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

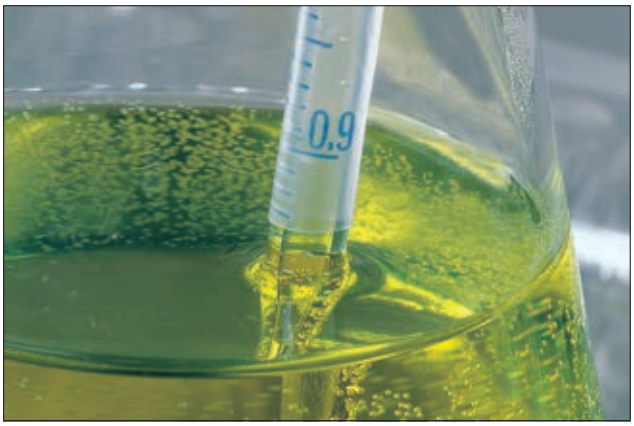
TYPE	Standards	Size (imp.)	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-12.7/6.4	ASN-E0126-06L	1/2 "	12.7	6.4	0.60	50 m	White (WH)	VG 95343 T05 A 008 L	305-12709
HFT-A-25.4/12.7	ASN-E0126-08L	1 "	25.4	12.7	0.90	25 m	White (WH)	VG 95343 T05 A 010 L	305-25409
HFT-A-38.0/19.0	ASN-E0126-09L	1 "	38.0	19.0	1.00	50 m	White (WH)	VG 95343 T05 A 011 L	305-38109
HFT-A-50.8/25.4	ASN-E0126-10L	2 "	51.0	25.4	1.10	35 m	White (WH)	VG 95343 T05 A 012 L	305-50809
HFT-A-76.0/38.0	ASN-E0126-11L	3 "	76.0	38.0	1.30	25 m	White (WH)	VG 95343 T05 A 013 L	305-76209

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Heat Shrinkable Tubing 2:1 - PVDF

- **TK20**

Typical applications of this translucent tubing are where high-temperature performance is required. Also very suitable for applications that ask for visual inspection of covered components, or if a low friction surface is needed. TK20 is also used as oil stop for energy cables. This thin walled, translucent heat shrink tubing is often used for chemical applications.



This thin walled, translucent heat shrink tubing is used for chemical applications.

Features and Benefits

- Semi-rigid heat shrinkable tubing made of PVDF
- Thin walled and tough
- For higher temperature applications
- Very good mechanical strength, abrasion resistance and chemical resistance
- Meets various industrial standards
- Self extinguishing, UL 224 VW1 listed

MATERIAL	Polyvinylidene Fluoride (PVDF)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +175 °C
Min. Shrink Temperature	+175 °C
Longitudinal change after shrinkage	+/-10% max
Dielectric Strength	≥ 30 kV/mm min. according to ASTM D2171
Flammability	UL224 VW-1
Specifications	SAE - AMS - DTL-23053 / 8, UL224 150 °C 600V VW-1, VG 95343

ASN **ASN-E0718**

Heat Shrinkable Tubing 2:1

RoHS

TYPE	Standards	Size (imp.)	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Designation as per VG-Norm	Article-No.
TK20-2.4/1.2	ASN-E0718-01	3/32 "	2.4	1.2	0.25	1.2 m	Transparent (CL)	VG95343T05F003M	311-00249
TK20-3.2/1.6	ASN-E0718-02	1/8 "	3.2	1.6	0.25	1.2 m	Transparent (CL)	VG95343T05F004M	311-00329
TK20-4.8/2.4	ASN-E0718-03	3/16 "	4.8	2.4	0.25	1.2 m	Transparent (CL)	VG95343T05F005M	311-00489
TK20-6.4/3.2	ASN-E0718-04	1/4 "	6.4	3.2	0.30	1.2 m	Transparent (CL)	VG95343T05F006M	311-00649
TK20-9.5/4.8	ASN-E0718-05	3/8 "	9.5	4.8	0.30	1.2 m	Transparent (CL)	VG95343T05F007M	311-00959
TK20-12.7/6.4	ASN-E0718-06	1/2 "	12.7	6.4	0.30	1.2 m	Transparent (CL)	VG95343T05F008M	311-01279
TK20-19.1/9.5	ASN-E0718-07	3/4 "	19.1	9.5	0.43	1.2 m	Transparent (CL)	VG95343T05F009M	311-01909
TK20-25.4/12.7	ASN-E0718-08	1 "	25.4	12.7	0.48	1.2 m	Transparent (CL)	VG95343T05F010M	311-02549
TK20-50.8/25.4	ASN-E0718-10	2 "	50.8	25.4	0.51	1.2 m	Transparent (CL)	-	311-05089
TK20-1.6/0.8	ASN-E0718-20	1/16 "	1.6	0.8	0.25	1.2 m	Transparent (CL)	VG95343T05F002M	311-00169

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

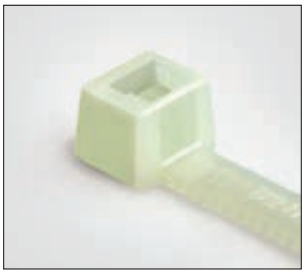
Cable Ties Polyamide 6.6 standard

- **T-Series in PA66 natural**

These cable ties are used for routing, bundling and securing of cables, pipes and hoses.

Features and Benefits

- Avaliable in a wide range of material and sizes
- Made from 100% high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simply to insert due to bent tail

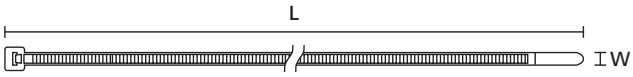


T-Series.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL94 V2
Specifications	Cage Code 53421, DIN 30015953, GL 86 137-81 HH, SAE - AS33671, UL ZODZ.E64139

HF ✓ RoHS ✓

BAC **BACS38K**



T-Series.

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T50R	BACS38K1	4.6	202.0	50.0	225	PA66	Natural (NA)	100	2-11	112-05019
T50L	BACS38K2	4.7	390.0	110.0	225	PA66	Natural (NA)	100	2-11	112-05419
T120R	BACS38K3	7.6	387.0	105.0	535	PA66	Natural (NA)	50	3;9-11	112-12019
T50I	BACS38K7	4.6	305.0	80.0	225	PA66	Natural (NA)	100	2-11	112-05219
T18R	BACS38K9	2.5	100.0	22.0	80	PA66	Natural (NA)	100	2;4-6;8;10-12	112-01819

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable Ties for outdoor use (UV-resistant)

- **T-Series in PA66W black**

MATERIAL	Polyamide 6.6, UV-stabilised (PA66UV)	Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C	
Flammability	UL94 V2	

BAC **BACS38K**

HF ✓ RoHS ✓

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T50R	BACS38K1A	4.6	202.0	50.0	225	PA66UV	Black (BK)	100	2-11	112-05060
T50L	BACS38K2A	4.7	390.0	110.0	225	PA66UV	Black (BK)	100	2-11	112-05460
T120R	BACS38K3A	7.6	387.0	105.0	535	PA66UV	Black (BK)	100	3;9-11	111-00400
T50I	BACS38K7A	4.6	305.0	80.0	225	PA66UV	Black (BK)	100	2-11	111-05256
T18R	BACS38K9A	2.5	100.0	22.0	80	PA66W	Black (BK)	100	2;4-6;8	112-01860

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

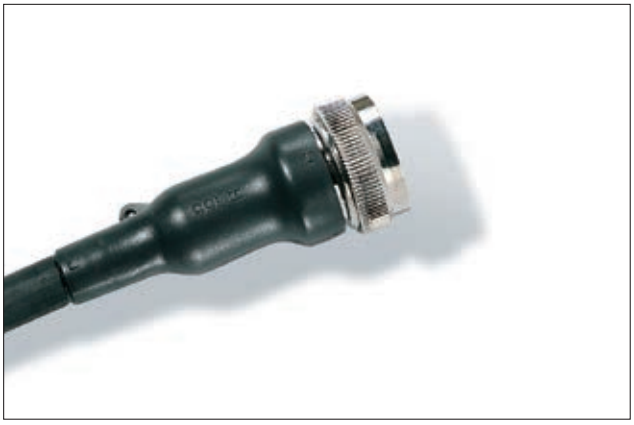
Bottle Shapes, VG style

- **Helashrink 150 Series, with rib**

Features and Benefits

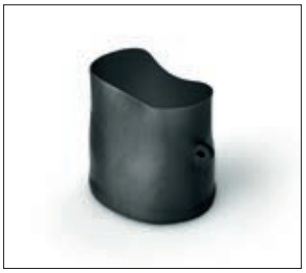
- Use in conjunction with circular grooved adaptor
- For strain relief and environmental sealing

DAN **DAN218**



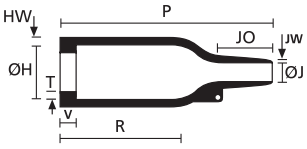
150 Series boot recovered onto a connector.

For Material/Adhesive information please refer to page 53.



150 Series supplied.

a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R nom	S nom	HW ± 20%	JW ± 20%	V max	T ± 20%	Designation as per VG-Norm	Article-No.
152-42-B7	DAN218-01	24.0	10.5	24.0	6.0	38.0	21.0	10.0	1.6	0.5	3.3	1.0	-	401-52008
152-41-B7	DAN218-01-01	24.0	10.5	24.0	6.0	26.0	9.0	10.0	1.6	0.5	3.3	1.0	-	401-52001
154-42-B7	DAN218-02	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.3	1.0	-	401-54820
154-41-B7	DAN218-02-01	30.0	14.0	30.0	6.0	43.0	20.0	13.0	1.8	1.0	3.3-	1.0	-	401-54001
155-42-B7	DAN218-03	31.0	18.0	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.3	1.0	-	401-55820
155-41-B7	DAN218-03-01	31.0	18.0	31.0	7.0	47.0	15.0	18.0	1.8	1.0	3.3	1.0	-	401-55001
156-42-B7	DAN218-04	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.3	1.0	-	401-56820
156-41-B7	DAN218-04-01	22.5	22.0	36.0	8.5	60.0	22.0	20.0	2.0	1.0	3.3	1.0	-	401-56001
157-42-B7	DAN218-05-01	43.0	28.0	43.0	10.0	79.0	41.0	20.0	2.2	1.0	3.3	1.7	-	401-57008
155-41-G	DAN218-03-01A	31.0	18.0	31.0	7.0	47.0	15.0	18.0	1.8	1.0	3.3	1.0	VG95343T06 A004A	401-55780

All dimensions in mm. Subject to technical changes.
For Material/Adhesive information please refer to page 53.

Right-Angle Shapes, VG-Style

- **Helashrink 1100 Series, with rib**

Features and Benefits

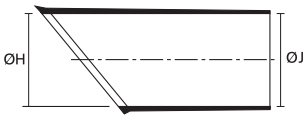
- With circular grooved adaptor for strain relief

DAN **DAN341**

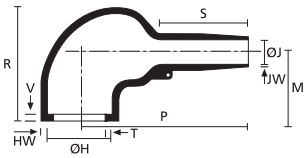
1152-4-G recovered on to a connector.

For Material/Adhesive information please refer to page 53.

1155-4 supplied.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	V max	T ± 20%	M nom	S nom	Designation as per VG-Norm	Article-No.
1152-4-B7	DAN341-01	24.0	10.5	24.0	6.0	26.0	25.0	1.3	0.5	3.3	1.0	19	10.0	-	411-52001
1154-4-B7	DAN341-03	30.0	14.5	30.0	6.0	32.0	27.0	1.5	0.8	3.3	1.0	19	12.0	-	411-54001
1156-4-B7	DAN341-05	36.0	22.5	36.0	8.5	46.0	38.0	1.8	1.0	3.3	1.0	26	15.0	-	411-56001
1154-4-G	DAN341-03A	30.0	15.5	30.0	6.0	32.0	27.0	1.5	0.8	3.3	1.0	19	12.0	VG95343T06E002A	411-54480
1156-4-G	DAN341-05A	36.0	22.5	36.0	8.5	46.0	38.0	1.8	1.0	3.3	1.0	26	15.0	VG95343T06E004A	411-56480

All dimensions in mm. Subject to technical changes.
For Material / Adhesive information please refer to page 53.

Lacing cord made of glass fibre

- **LCHT4D series**

Features and Benefits

- Excellent resistanct to high temperatures
- Superior fibre-to-fibre abrasion resistance

DAN **DAN107**

HT Lacing Cord LCHT4.

MATERIAL	Glass Fibre (GF), Polytetrafluoroethylene (PTFE)	
Operating Temperature	-55 °C to +427 °C	
Specifications	DAN107-1	DAN107-2, NSA8420

RoHS

TYPE	Standards	Nominal Ø	N	Weight	Finish	Colour	Reel Length	Article-No.
LCHT4D11NA	DAN107-1	1.1	216	0.15 kg	D = PTFE	Natural (NA)	500 m	174-00022
LCHT4D20NA	DAN107-2	2.0	785	0.42 kg	D = PTFE	Natural (NA)	100 m	174-00023

All dimensions in mm. Subject to technical changes.

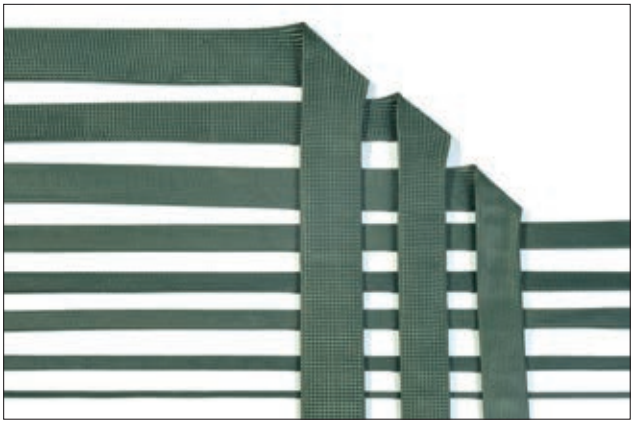
NOMEX® braided sleeving

- **Helagaine HEGMAN and HEGMANWO**

Helagaine HEGMAN and HEGMANWO has been designed for applications that require mechanical protection at high temperatures such as aeronautic, aerospace, military, railway and shipbuilding industries.

Features and Benefits

- Made of non-flammable meta-aramid
- Extremely flexible
- High expansion for easy installation over long lengths
- Optimal mechanical protection for harnesses
- Able to withstand the most severe environments
- Superior protection against abrasion, flames and high temperatures
- Highly resistant to radiation and fluids



Helagaine HEGMAN and HEGMANWO are available in various sizes.

DIN **DIN EN6049**

MATERIAL	Polyaramid Polymetaphenylene Isophthalamide (NOMEX)
Operating Temperature	+240 °C
Melting Point	Does not melt/ Carbonisation above +370 °C
Flammability	UL94 V0 (Raw material), UL224 VW-1
Specifications	DIN EN 6049

RoHS

TYPE	Standards	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
HEGMAN-02	DIN EN6049-003-02-5	1.0	2.0	Green (GN)	100 m	170-02100
HEGMAN-04	DIN EN6049-003-04-5	2.0	4.0	Green (GN)	100 m	170-02101
HEGMAN-06	DIN EN6049-003-06-5	4.0	8.0	Green (GN)	100 m	170-02102
HEGMAN-08	DIN EN6049-003-08-5	6.0	12.0	Green (GN)	50 m	170-02103
HEGMAN-10	DIN EN6049-003-10-5	8.0	16.0	Green (GN)	50 m	170-02104
HEGMAN-15	DIN EN6049-003-15-5	10.0	20.0	Green (GN)	50 m	170-02105
HEGMAN-20	DIN EN6049-003-20-5	12.0	24.0	Green (GN)	50 m	170-02106
HEGMAN-25	DIN EN6049-003-25-5	15.0	30.0	Green (GN)	50 m	170-02107
HEGMAN-30	DIN EN6049-003-30-5	20.0	40.0	Green (GN)	50 m	170-02108

All dimensions in mm. Subject to technical changes. Cuts in any lengths. NOMEX® is a registered trademark of DuPont. Minimum Order Quantity (MOQ) may differ from package content.

TYPE	Standards	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
HEGMANWO-02	DIN EN6049-004-02-5	1.0	2.0	Green (GN)	100 m	170-02000
HEGMANWO-04	DIN EN6049-004-04-5	2.0	4.0	Green (GN)	100 m	170-02001
HEGMANWO-06	DIN EN6049-004-06-5	4.0	8.0	Green (GN)	100 m	170-02002
HEGMANWO-08	DIN EN6049-004-08-5	6.0	12.0	Green (GN)	50 m	170-02003
HEGMANWO-10	DIN EN6049-004-10-5	8.0	16.0	Green (GN)	50 m	170-02004
HEGMANWO-15	DIN EN6049-004-15-5	10.0	20.0	Green (GN)	50 m	170-02005
HEGMANWO-20	DIN EN6049-004-20-5	12.0	24.0	Green (GN)	50 m	170-02006
HEGMANWO-25	DIN EN6049-004-25-5	15.0	30.0	Green (GN)	50 m	170-02007
HEGMANWO-30	DIN EN6049-004-30-5	20.0	40.0	Green (GN)	50 m	170-02008

All dimensions in mm. Subject to technical changes. Cuts in any lengths. NOMEX® is a registered trademark of DuPont. Minimum Order Quantity (MOQ) may differ from package content.

Angled T-Shapes, VG style

- **Helashrink 1300 Series, 30° and 45° angle**

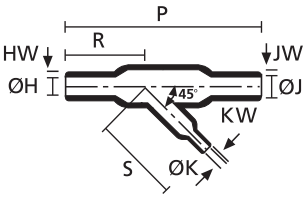
Features and Benefits

- Strain relief, sealing and mechanical protection on cable harnesses

1303-1-G supplied / fully recovered.

JN **JN1000T**

a: Expanded form (supplied)



b: Fully recovered form (after heating)

For Material/Adhesive information please refer to page 53.

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	ØK min. a	ØK max. b	P ± 10%	R ± 10%	HW ± 30%	JW ± 30%	KW ± 20%	S ± 10%	Angle	Designation as per VG-Norm	Article-No.
1306-1-G	JN1000T-E001	13.0	6.0	6.5	3.0	6.5	3.0	45.0	23.0	1.5	1.0	1.5	21.5	45 °	VG95343 T06B010A	413-06180
VG95343 T19B010A	JN1000T-P001	13.0	6.0	6.5	3.0	6.5	3.0	45.0	23.0	1.5	1.0	1.5	21.5	45 °	VG95343 T19B010A	413-06181

All dimensions in mm. Subject to technical changes. For Material / Adhesive information please refer to page 53.

2-Way Outlet Shapes, VG style

- **Helashrink 200 Series**

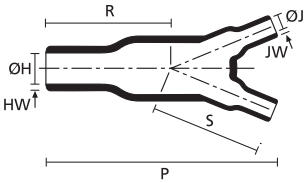
Features and Benefits

- Mechanical tension relief in cable harnesses

Two-way outlet shape 223-2 supplied / fully recovered.

JN **JN1000T**

a: Expanded form (supplied)



b: Fully recovered form (after heating)

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 30%	JW nom.	S nom	Designation as per VG-Norm	Article-No.
206-1-G	JN1000T-E006	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	19.0	VG95343T08C001A	402-06180
203-1-G	JN1000T-E007	27.0	12.0	13.0	6.0	80.0	43.0	2.5	1.5	1.5	43.0	VG95343T08C002A	402-03180
206-1-GW24	JN1000T-P006	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	19.0	VG95343T19C001A	402-06184
203-1-GW24	JN1000T-P007	27.0	12.0	13.0	6.0	80.0	43.0	2.5	1.5	1.5	43.0	VG95343T19C002A	402-03184

All dimensions in mm. Subject to technical changes. For Material/Adhesive information please refer to page 53.

Bottle Shapes

- **Helashrink 100 Series**

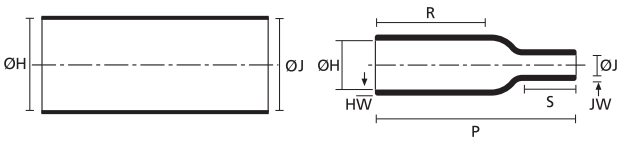
Features and Benefits

- Strain relief for connector cable
- Easy re-entry for repair when combined with hot melt adhesive

LEA

100 series supplied / fully recovered.

For Material/Adhesive information please refer to page 53.



a: Expanded form (supplied) *b: Fully recovered form (after heating)*

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	HW ± 20%	JW ± 30%	S nom	Article-No.
106-1-G	01PR0PM0-1-10-5	31.0	14.2	31.0	6.6	55.4	1.8	1.8	16.5	401-06005

All dimensions in mm. Subject to technical changes. For Material / Adhesive information please refer to page 53.

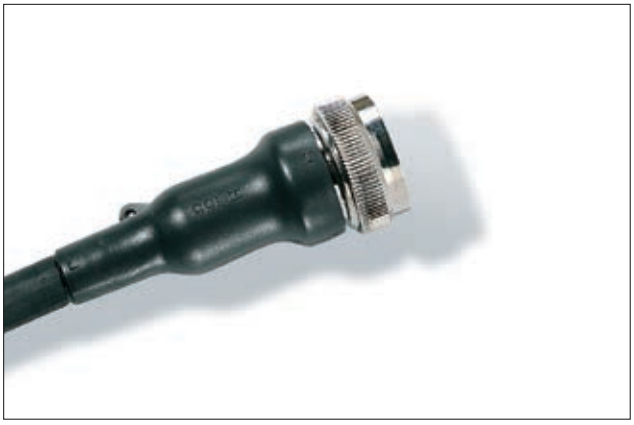
Bottle Shapes, VG style

- **Helashrink 150 Series, with rib**

Features and Benefits

- Use in conjunction with circular grooved adaptor
- For strain relief and environmental sealing

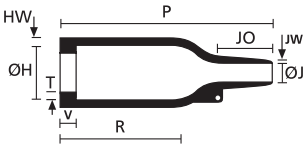
LEA



150 Series boot recovered onto a connector.

For Material/Adhesive information please refer to page 53.

a: Expanded form (supplied)



b: Fully recovered form (after heating)

150 Series supplied.

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R nom	S nom	HW ± 20%	JW ± 20%	V max	T ± 20%	Designation as per VG-Norm	Article-No.
158-49-G	01PR0PM0-1-21-5	41.6	35.0	37.0	16.0	1.1	52.0	38.0	3.2	-	3.3	-	-	401-58079
152-42-G	01PR0PM0-1K08-5	24.0	10.5	24.0	6.0	38.0	21.0	10.0	1.6	0.5	3.3	1.0	VG95343T06 B001A	401-52043
152-41-G	01PR0PM0-1K08-5-001	24.0	10.5	24.0	6.0	26.0	9.0	10.0	1.6	0.5	3.3	1.0	VG95343T06 A001A	401-52041
152-52-L	01PR0PM0-1K08-7	24.0	10.5	12.0	6.0	38.0	21.0	10.0	1.6	1.0	3.3	1.0	-	401-52029
154-42-G	01PR0PM0-1K10-5	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.3	1.0	VG95343T06 B003A	401-54045
154-41-G	01PR0PM0-1K10-5-001	30.0	14.0	30.0	6.0	43.0	20.0	1.0	1.8	1.0	3.3	1.0	VG95343T06 A003A	401-54043
154-52-L	01PR0PM0-1K10-7	24.0	14.0	12.0	6.0	55.0	32.0	13.0	1.8	1.0	3.3	1.0	-	401-54028
155-42-G	01PR0PM0-1K12-5	31.0	10.5	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.3	1.0	VG95343T06 B004A	401-55043
155-41-G	01PR0PM0-1K12-5-001	31.0	18.0	31.0	7.0	47.0	15.0	18.0	1.8	1.0	3.3	1.0	VG95343T06 A004A	401-55041
156-42-G	01PR0PM0-1K16-5	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.3	1.0	VG95343T06 B005A	401-56045
156-41-G	01PR0PM0-1K16-5-001	36.0	22.5	36.0	8.5	60.0	22.0	20.0	2.0	1.0	3.3	1.0	VG95343T06 A005A	401-56042
157-43-G	01PR0PM0-1K18-5	43.0	28.0	43.0	10.0	99.0	61.0	20.0	2.2	1.0	3.3	1.7	VG95343T06 C001A	401-57059
157-42-G	01PR0PM0-1K18-5-001	43.0	28.0	43.0	10.0	79.0	41.0	20.0	2.2	1.0	3.3	1.7	VG95343T06 B006A	401-57057
157-41-G	01PR0PM0-1K18-5-002	43.0	28.0	43.0	10.0	60.0	21.0	20.0	2.2	1.0	3.3	1.7	VG 95343T06 A006A	401-57780

All dimensions in mm. Subject to technical changes. For Material / Adhesive information please refer to page 53.

2-Way Outlet Shapes, VG style

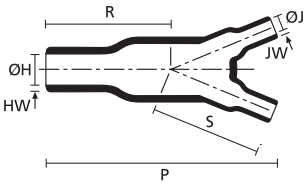
- **Helashrink 200 Series**

Features and Benefits

- Mechanical tension relief in cable harnesses

LEA

a: Expanded form (supplied)



b: Fully recovered form (after heating)

Two-way outlet shape 223-2 supplied / fully recovered.

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	JW ± 30%	JW nom.	S nom	Article-No.
206-1-G	01PR0DM0-3-002-5	13.0	6.0	7.0	3.0	41.0	19.0	1.0	1.0	19.0	402-06036

All dimensions in mm. Subject to technical changes. For Material / Adhesive information please refer to page 53.

For Material/Adhesive information please refer to page 53.

Angle Shapes

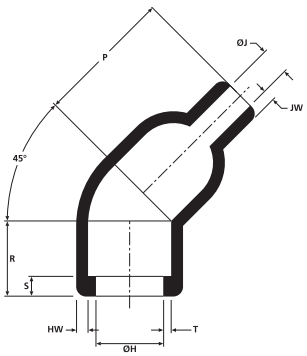
- **Helashrink 1800 Series, with rib, 30°, 45°, 60° angle**

Features and Benefits

- Provides strain relief and mechanical protection for harness systems
- Use in conjunction with a circular grooved adaptor

LEA

a: Expanded form (supplied)



b: Fully recovered form (after heating)

1821-42 supplied / fully recovered.

TYPE	Standards	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	JO ± 10%	HW ± 20%	JW ± 20%	T ± 10%	T ± 20%	S nom	Article-No.
1807-5-L	01PR0PM0-2-16-7, 01PR0PM0-4-16-7	18.0	18.0	14.8	7.4	43.2	7.2	15.2	1.8	1.8	-	1.0	3.0	418-07007
1821-42-G	01PR0PM0-2K08-5	20.0	14.2	20.0	4.1	24.0	10.0	-	2.3	1.8	1.1	-	-	418-21013
1805-6-L	02PR0PM0-2-16-7	35.6	18.8	16.0	7.0	28.0	-	-	1.5	1.5	-	-	-	418-05011

All dimensions in mm. Subject to technical changes. For Material / Adhesive information please refer to page 53.

Heat Shrinkable Tubing 2:1 flexible and coloured

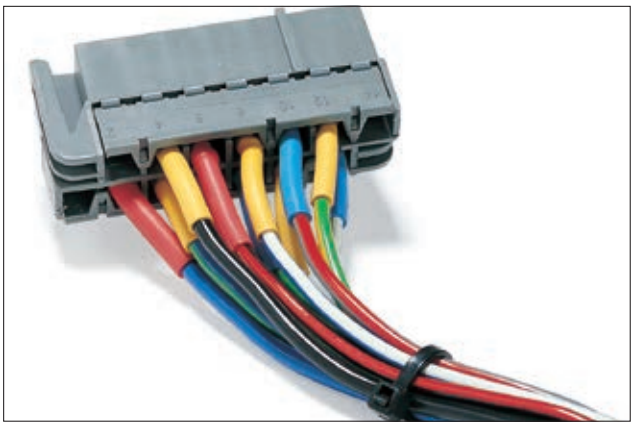
- **HFT-A - self extinguishing**

This high performance thin wall tubing is used extensively for electrical and mechanical protection. It is also well proven for sleeve marking to identify wiring circuits. It shrinks uniformly to form a permanent insulation covering.
The transparent version is used for bundling and cable protection where visual inspection is required. It is often used as a see through protective sleeve over cable markers.

Features and Benefits

- Flexible heat shrink tubing
- Fast shrinking, easy handling, good mechanical strength
- Easy to print on
- Wide range of colours
- Internal diameters up to 4 inches (101.6 mm)
- UL-224 ,CSA listed and VG approved

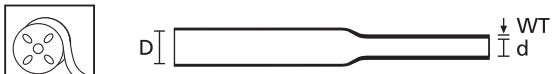
LEA



HFT-A conforms to major standards used in all Defence industries.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal change after shrinkage	+5%/-10%
Dielectric Strength	20 kV/mm according to IEC 60684 P2
Flammability	Self extinguishing
Specifications	CSA, DEF STAN 59-97/3, MIL-DTL-23053/5C, NF F 00-608, SAE - AMS - DTL-23053 / 5C, UL224 125 °C 600V, VG 95343

RoHS



Heat Shrinkable Tubing 2:1

TYPE	Standards	Spld. Ø D min.	Size (imp.l)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-25.4/12.7	01PR0RNF1BK	25.4	1 "	12.7	0.90	50 m	Black (BK)	VG 95343 T05 A 010 A	305-25400
HFT-A-38.0/19.0	01PR0RNF1-1-2BK	38.0	1 "	19.0	1.00	50 m	Black (BK)	VG 95343 T05 A 011 A	305-38100
HFT-A-1.6/0.8	01PR0RNF1-16BK	1.6	1/16 "	0.8	0.40	400 m	Black (BK)	VG 95343 T05 A 002 A	305-01600
HFT-A-12.7/6.4	01PR0RNF1-2BK	12.7	1/2 "	6.4	0.60	100 m	Black (BK)	VG 95343 T05 A 008 A	305-12700
HFT-A-6.4/3.2	01PR0RNF1-4BK	6.4	1/4 "	3.2	0.60	300 m	Black (BK)	VG 95343 T05 A 006 A	305-06400
HFT-A-3.2/1.6	01PR0RNF1-8BK	3.2	1/8 "	1.6	0.50	400 m	Black (BK)	VG 95343 T05 A 004 A	305-03200
HFT-A-50.8/25.4	01PR0RNF2BK	51.0	2 "	25.4	1.10	35 m	Black (BK)	VG 95343 T05 A 012 A	305-50800
HFT-A-76.0/38.0	01PR0RNF3BK	76.0	3 "	38.0	1.30	25 m	Black (BK)	VG 95343 T05 A 013 A	305-76200
HFT-A-4.8/2.4	01PR0RNF3-16BK	4.8	3/16 "	2.4	0.50	300 m	Black (BK)	VG 95343 T05 A 005 A	305-04800
HFT-A-2.4/1.2	01PR0RNF3-32BK	2.4	3/32 "	1.2	0.50	400 m	Black (BK)	VG 95343 T05 A 003 A	305-02400
HFT-A-19.0/9.5	01PR0RNF3-4BK	19.0	3/4 "	9.5	0.80	50 m	Black (BK)	VG 95343 T05 A 009 A	305-19000
HFT-A-1.2/0.6	01PR0RNF3-64BK	1.2	3/64 "	0.6	0.40	400 m	Black (BK)	VG 95343 T05 A 001A	305-01200
HFT-A-9.5/4.8	01PR0RNF3-8BK	9.5	3/8 "	4.8	0.60	150 m	Black (BK)	VG 95343 T05 A007 A	305-09500
HFT-A-101.6/50.8	01PR0RNF4BK	101.6	4 "	50.8	1.40	25 m	Black (BK)	VG 95343 T05 A 014 A	305-91600

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

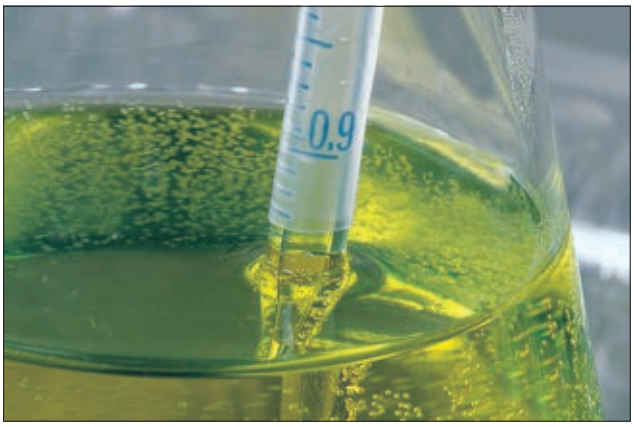
Heat Shrinkable Tubing 2:1 -PVDF

- **KYNAR®**

For electrical insulation and strain relief of connectors, solder joints, resistors, thermo-switches and many other parts.

Features and Benefits

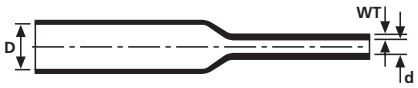
- Semi-rigid transparent heat shrink tubing
- High chemical and puncture resistance
- Extra thin wall tubing
- High temperature performance
- Self extinguishing
- Very good electrical and mechanical qualities
- Transparent material allows visual inspection of covered components



This thin walled, translucent heat shrink tubing is used for chemical applications.

LEA

MATERIAL	Polyvinylidene Fluoride (PVDF)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +175 °C
Min. Shrink Temperature	+175 °C
Longitudinal change after shrinkage	-5% max.
Dielectric Strength	30 kV/mm according to IEC 60684 P2
Flammability	UL224 VW-1
Specifications	DEF STAN 59-97/3, MIL-DTL-23053/8, UL224 150 °C 600V VW-1



RoHS

TYPE	Standards	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Article-No.
KYNAR® 1/2	01PR0KYN1-2TR	12.7	6.4	0.30	1.2 m	Transparent (CL)	332-01279
KYNAR® 1/4	01PR0KYN1-4TR	6.4	3.2	0.30	1.2 m	Transparent (CL)	332-00649
KYNAR® 1/8	01PR0KYN1-8TR	3.2	1.6	0.25	1.2 m	Transparent (CL)	332-00329
KYNAR® 3/16	01PR0KYN3-16TR	4.8	2.4	0.25	1.2 m	Transparent (CL)	332-00489
KYNAR® 3/32	01PR0KYN3-32TR	2.4	1.2	0.25	1.2 m	Transparent (CL)	332-00249
KYNAR® 3/4	01PR0KYN3-4TR	19.0	9.5	0.43	1.2 m	Transparent (CL)	332-01909
KYNAR® 3/64	01PR0KYN3-64TR	1.2	0.6	0.25	1.2 m	Transparent (CL)	332-00129
KYNAR® 3/8	01PR0KYN3-8TR	9.5	4.8	0.30	1.2 m	Transparent (CL)	332-00959

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

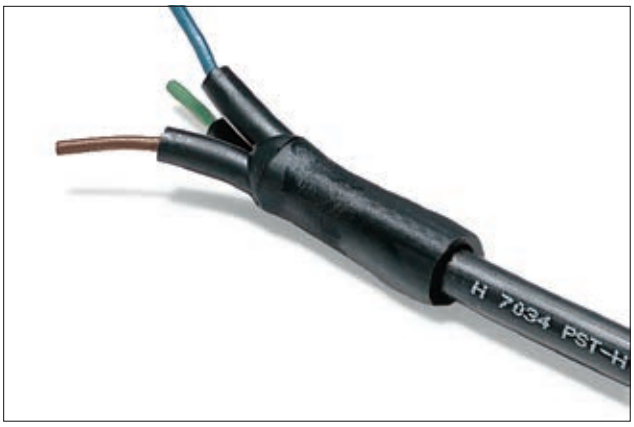
Heat Shrinkable Tubing 2:1 - Elastomer

- **PST-H**

PST-H is used for long-term protection of cables and wire harnesses in military equipment, motor sports, and aviation.

Features and Benefits

- Flexible, high performance elastomeric tubing
- Resistant to diesel, aviation and hydraulic fluids
- Used in aerospace, defence, railway and automotive applications
- VG approved shrink tubing

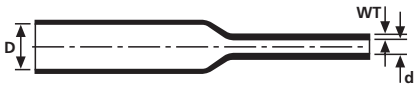


PST-H tubing with a break out boot.

LEA

MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature	+135 °C
Longitudinal change after shrinkage	-10% max.
Dielectric Strength	20 kV/mm according to IEC 60684 P2
Flammability	Self extinguishing
Specifications	DEF STAN 59-97/3, NF F 00-608, VG 95343

RoHS



TYPE	Standards	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Article-No.
PST-H-25.4/12.7	01PR025-1BK	25.4	12.7	1.80	50 m	Black (BK)	342-22540
PST-H-38.0-19.0	01PR025-1-1-2BK	38.0	19.0	2.40	30 m	Black (BK)	342-23810
PST-H-12.7/6.4	01PR025-1-2BK	12.7	6.4	1.20	100 m	Black (BK)	342-21270
PST-H-6.4/3.2	01PR025-1-4BK	6.4	3.2	0.90	300 m	Black (BK)	342-20640
PST-H-19.0/9.5	01PR025-3-4BK	19.0	9.5	1.40	50 m	Black (BK)	342-21900
PST-H-9.5/4.8	01PR025-3-8BK	9.5	4.8	1.00	100 m	Black (BK)	342-20950

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

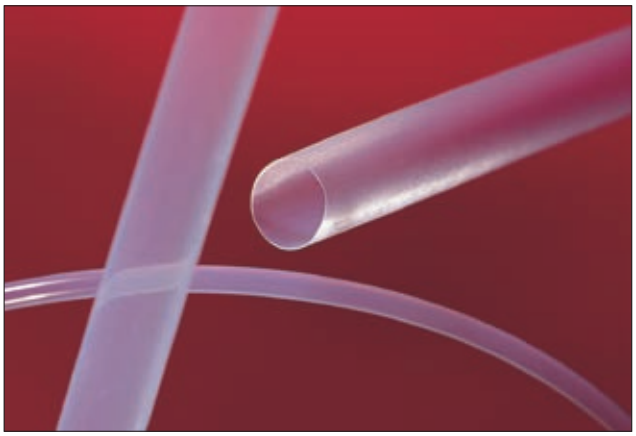
Heat Shrinkable Tubing - PTFE

- **TFE4 4:1**

TFE is ideal for high temperature applications, where resistance to aggressive fluids is required or a very thin walled tubing is needed, for example in pH-measuring instruments. TFE tubing is also used to reduce movement due to friction, covering cylinders for example.

Features and Benefits

- PTFE heat shrink tubing
- Very high temperature resistance
- Extra thin wall translucent tubing
- High abrasion resistance and good resistance against aggressive chemicals
- Available in either 2:1 (TFE2) or 4:1 (TFE4) shrink ratios



TFE is available in either 2:1 or 4:1 shrink ratios.

LEA

Cut lengths available on request. Please contact us!

MATERIAL	Polytetrafluoroethylene (PTFE)
Operating Temperature	-70 °C to +260 °C
Min. Shrink emperature	+350 °C
Longitudinal change after shrinkage	-20% max.
Dielectric Strength	40 kV/mm according to DIN 53481
Flammability	Non burning

RoHS

Heat Shrinkable Tubing 4:1

TYPE	Standards	Supplied Ø D min.	Recov. Ø d max.	Size (imperial)	Wall (WT)	Length (L)	Colour	Shrink Ratio	Article-No.
TFE4 64	01PR0PTF1-4TR	6.4	1.60	1/4 "	0.30	1.2 m	Transparent (CL)	4:1	339-00651
TFE4 32	01PR0PTF1-8TR	3.2	0.94	1/8 "	0.25	1.2 m	Transparent (CL)	4:1	339-00331
TFE4-5/64	01PR0PTF5-64TR	2.0	0.64	-	0.22	1.2 m	Transparent (CL)	4:1	339-10000

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Heat Shrinkable Tubing 2:1 - Fluoroelastomer

- **Viton®-E**

Viton®-E is used for reliable protection against aggressive chemicals in high temperature environments like engine compartments and turbines. It is also used when protective tubings are required to remain flexible at low temperatures.

Features and Benefits

- High temperature resistant fluoroelastomeric heat shrink tubing
- Very good electrical, chemical and mechanical features
- Resistant to many fuels, oils and lubricants
- Flexible even at very low temperatures

Viton®-E for flexibility and protection against aggressive chemicals.

LEA

MATERIAL	Fluoropolymer cross-linked (FPMX)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +220 °C
Min. Shrink Temperature	+175 °C
Longitudinal change after shrinkage	-10% max.
Dielectric Strength	15 kV/mm
Flammability	VG 95343
Insulation Class	C (VDE 0530)
Specifications	VG 95343

Heat Shrinkable Tubing 2:1

RoHS

TYPE	Standards	Size (imp.)	Spld. Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
VITON®-E-25.4/12.7	01PR0VYT1BK	1 "	25.4	12.7	1.80	25 m	Black (BK)	VG 95343 T 05 E 007 A	330-02540
VITON®-E-38.0/19.0	01PR0VYT1-1-2BK	1 "	38.0	19.0	2.40	15 m	Black (BK)	VG 95343 T 05 E 008 A	330-03810
VITON®-E-12.7/6.4	01PR0VYT1-2BK	1/2 "	12.7	6.4	1.20	25 m	Black (BK)	VG 95343 T 05 E 005 A	330-01270
VITON®-E-6.4/3.2	01PR0VYT1-4BK	1/4 "	6.4	3.2	0.90	50 m	Black (BK)	VG 95343 T 05 E 003 A	330-00640
VITON®-E-3.2/1.6	01PR0VYT1-8BK	1/8 "	3.2	1.6	0.70	50 m	Black (BK)	VG 95343 T 05 E 001 A	330-00320
VITON®-E-50.8/25.4	01PR0VYT2BK	2 "	50.8	25.4	2.80	15 m	Black (BK)	VG 95343 T 05 E 009 A	330-05080
VITON®-E-4.8/2.4	01PR0VYT3-16BK	3/16 "	4.8	2.4	0.80	50 m	Black (BK)	VG 95343 T 05 E 002 A	330-00480
VITON®-E-19.0/9.5	01PR0VYT3-4BK	3/4 "	19.0	9.5	1.40	25 m	Black (BK)	VG 95343 T 05 E 006 A	330-01900
VITON®-E-9.5/4.8	01PR0VYT3-8BK	3/8 "	9.5	4.8	1.00	25 m	Black (BK)	VG 95343 T 05 E 004 A	330-00950

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Lacing Tapes LTHT

- **Lacing tape LTHT2E4BK**

Features and Benefits

- High tensile strength
- Vinyl chloride surface finishing provides good abrasion resistance

LEA

Lacing cord LTHT2E4BK.

MATERIAL	Polyester (PET)
Operating Temperature	-67 °C to +177 °C
Specifications	LEA, MIL-A-A-52081, NSA8420

RoHS

TYPE	Standards	Width (W)	Thickness (T)	N	Weight	Finish	Colour	Reel Length	Article-No.
LTHT2E4BK	01FFFTF4BK	1.5	0.30	113	0.6 g/m	E = Vinyl	Black (BK)	500 m	174-00024

All dimensions in mm. Subject to technical changes.

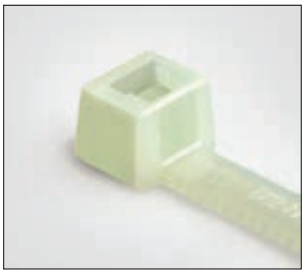
Cable Ties for outdoor use (UV-resistant)

- **T-Series in PA66W black**

These cable ties are used for routing, bundling and securing of cables, pipes and hoses.

Features and Benefits

- Avaliable in a wide range of material and sizes
- Made from 100% high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simply to insert due to bent tail

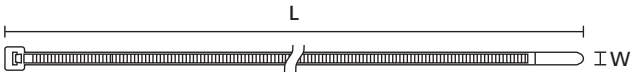


T-Series.

MATERIAL	Polyamide 6.6, UV-stabilised (PA66UV)	Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C	
Flammability	UL94 V2	

HF ✓ RoHS ✓

MS **MS3367**



T-Series.

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T50R	MS3367-1-0	4.6	202.0	50.0	225	PA66UV	Black (BK)	100	2-11	112-05060
T50L	MS3367-2-0	4.7	390.0	110.0	225	PA66UV	Black (BK)	100	2-11	112-05460
T120R	MS3367-3-0	7.6	387.0	105.0	535	PA66UV	Black (BK)	100	3;9-11	111-00400
T18R	MS3367-4-0	2.5	100.0	22.0	80	PA66W	Black (BK)	100	2;4-6;8	112-01860
T30R	MS3367-5-0	3.6	148.0	35.0	135	PA66UV	Black (BK)	100	2;4-6;8	112-03060
T50I	MS3367-7-0	4.6	305.0	80.0	225	PA66UV	Black (BK)	100	2-11	111-05256

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable Ties Polyamide 6.6 standard

- **T-Series in PA66 natural**

MS **MS3367**

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL94 V2
Specifications	Cage Code 53421, DIN 30015953, GL 86 137-81 HH, SAE - AS33671, UL ZODZ.E64139

HF ✓ RoHS ✓

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Application Tool No.	Article-No.
T50R	MS3367-1-9	4.6	202.0	50.0	225	PA66	Natural (NA)	100	2-11	112-05019
T50L	MS3367-2-9	4.7	390.0	110.0	225	PA66	Natural (NA)	100	2-11	112-05419
T120R	MS3367-3-9	7.6	387.0	105.0	535	PA66	Natural (NA)	50	3;9-11	112-12019
T18R	MS3367-4-9	2.5	100.0	22.0	80	PA66	Natural (NA)	100	2;4-6;8;10-12	112-01819
T30R	MS3367-5-9	3.6	148.0	35.0	135	PA66	Natural (NA)	100	2;4-6;8	112-03019
T50I	MS3367-7-9	4.6	305.0	80.0	225	PA66	Natural (NA)	100	2-11	112-05219

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Aluminium P-Clips

- **ALU-P-Clip with / without chloroprene Insert**

Manufactured from a high quality aluminium these P-Clips provide flexibility and yet give a permanent fixing in the most arduous of environments. The addition of a Chloroprene insert provides the cable or pipe bundle with a high degree of protection against vibration, reduces noise and also offers electrical isolation.

Features and Benefits

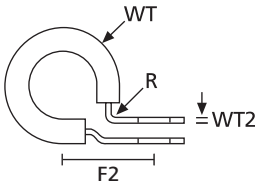
- Simple, secure pipe or cable fixing (e. g. caravan construction)
- Combine with chloroprene insert for vibration resistance (e. g. retain capacitors on PCB)
- Ideal for use in high temperatures
- Suitable for applications needing strength of metal components

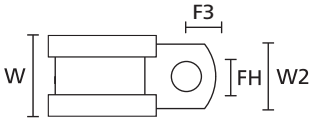
MS **MS2191**

P-Clips manufactured in polyamide, aluminium or aluminium with chloroprene insert.

MATERIAL	Aluminium-alloy (AL), Chloroprene (CR)
Operating Temperature	-20 °C to +80 °C

RoHS





Aluminium P Clips with Chloroprene insert

TYPE	Standards	Width (W)	Width (W2)	Wall (WT)	Wall (WT2)	Hole Ø (FH)	Fixing Hole Centres (F2)	Bundle Ø max.	Radius (R)	Material	Colour	Article-No.
ALU10C	MS2191 DG08	16.3	12.7	3.70	0.8	5,2	16.6	12.7	1.6	AL, CR	Black (BK)	211-15100
ALU12C	MS2191 DG10	16.3	12.7	4.50	1.3	5,2	19.9	15.9	2.8	AL, CR	Black (BK)	211-15120
ALU15C	MS2191 DG13	16.3	12.7	4.50	1.3	5,2	22.3	20.6	2.8	AL, CR	Black (BK)	211-15150
ALU23C	MS2191 DG21	16.3	12.7	4.50	1.6	5,2	29.4	33.3	3.2	AL, CR	Black (BK)	211-15230
ALU26C	MS2191 DG24	16.3	12.7	4.50	1.6	5,2	31.7	38.1	3.2	AL, CR	Black (BK)	211-15260
ALU30C	MS2191 DG28	16.3	12.7	4.50	1.6	5,2	34.9	44.5	3.2	AL, CR	Black (BK)	211-15300

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. .

Cable Protection for sharp-edged cut-out-sections

- **Flexiform Edge Protection grommet strip**

Flexiform grommet strip is used to protect cables routed through sharp-edged cutout sections.

Features and Benefits

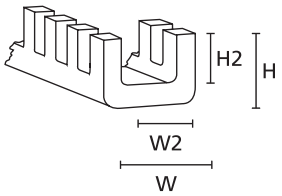
- Very flexible
- Easily and securely applied without adhesives
- Very high abrasion resistance
- Close-fitting rail for effective, orderly-looking protection

Optimal protection of cables and wires at panel edges.

MS **MS21266**

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +95 °C
Flammability	UL94 HB
Specifications	NASM21266, PAN 6480-A

HF ✓ RoHS ✓



TYPE	Standards	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51NA	MS21266-1N	0.4 - 1.3	3.9	1.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21109
G51NB	MS21266-2N	1.3 - 2.1	4.6	2.4	4.3	2.7	PA6	Natural (NA)	25 m	251-21209
G51NC	MS21266-3N	2.1 - 3.3	5.7	3.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21309
G51ND	MS21266-4N	3.3 - 4.8	8.4	5.1	6.2	4.3	PA6	Natural (NA)	25 m	251-21409
G51NE	MS21266-5N	4.8 - 6.5	9.9	6.7	6.4	4.5	PA6	Natural (NA)	25 m	251-21509
G51NF	MS21266-6N	6.5 - 8.1	11.4	8.3	6.8	4.8	PA6	Natural (NA)	25 m	251-21609
G51NG	MS21266-7N	8.1 - 9.7	13.2	10.1	6.8	4.8	PA6	Natural (NA)	25 m	251-21709
G51NH	MS21266-8N	9.7 - 12.9	16.4	13.2	6.8	4.8	PA6	Natural (NA)	25 m	251-21809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.
Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

TYPE	Standards	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51TA	MS21266-1T	0.4 - 1.3	3.9	1.5	4.3	2.7	PTFE	Natural (NA)	3 m	251-30109
G51TB	MS21266-2T	1.3 - 2.1	4.6	2.4	4.3	2.7	PTFE	Natural (NA)	3 m	251-30209
G51TC	MS21266-3T	2.1 - 3.3	5.7	3.5	4.3	2.7	PTFE	Natural (NA)	3 m	251-30309
G51TD	MS21266-4T	3.3 - 4.8	8.4	5.1	6.2	4.3	PTFE	Natural (NA)	3 m	251-30409
G51TE	MS21266-5T	4.8 - 6.5	9.9	6.7	6.4	4.5	PTFE	Natural (NA)	3 m	251-30509
G51TF	MS21266-6T	6.5 - 8.1	11.4	8.3	6.8	4.8	PTFE	Natural (NA)	3 m	251-30609
G51TG	MS21266-7T	8.1 - 9.7	13.2	10.1	6.8	4.8	PTFE	Natural (NA)	3 m	251-30709
G51TH	MS21266-8T	9.7 - 12.9	16.4	13.2	6.8	4.8	PTFE	Natural (NA)	3 m	251-30809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.
Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

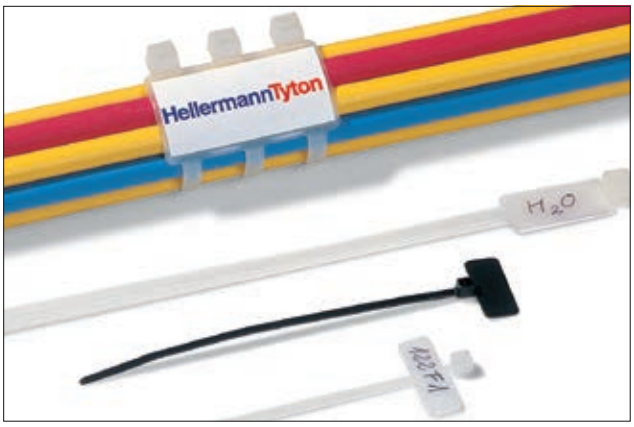
Identification ties and plates for marking cable bundles

- **IT-Ties**

One of the major benefits is the ability to both secure and identify cable bundles at the same time.

Features and Benefits

- Identification ties made of Polyamide 6.6
- For simple identification and securing of cable bundles in one step
- Printable labels are available for a professional finish
- Manual or temporary marking is possible with an indelible pen (T82S-BK / T82R-RD)

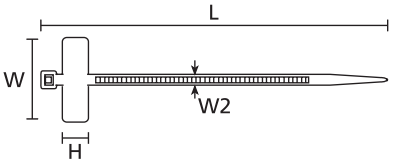


One operation with two benefits.

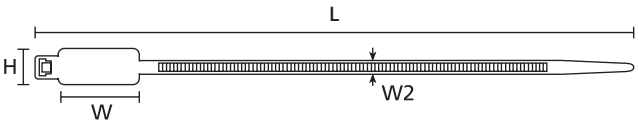
MS **MS3368**

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL94 V2
Specifications	Cage Code 53421, DIN 30015953, SAE - AS33681, UL ZODZ2.E64139

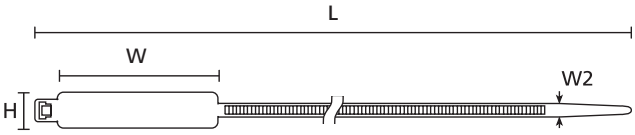
HF ✓ **RoHS** ✓



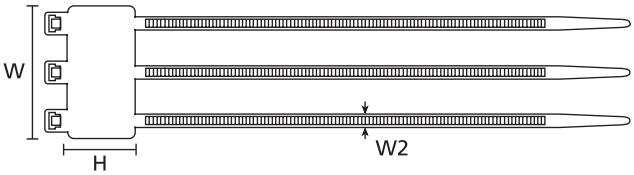
IT18R



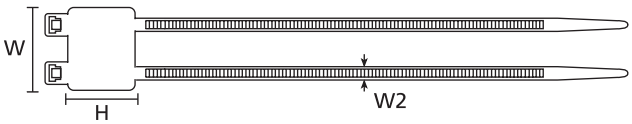
IT50R



IT50RT



IT50L



IT50RD

TYPE	Standards	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)	N	Rec. Labels	Material	Colour	Pack Cont.	Article-No.
IT50R	MS3368-1-9A	9.5	44.5	28.0	12.9	203.0	4.6	225	TAG23-10TD1	PA66	Natural (NA)	100 pcs.	111-85019
IT50L	MS3368-2-9A	19.0	100.0	56.0	12.8	390.0	4.7	225	TAG52-10TD1	PA66	Natural (NA)	100 pcs.	111-85319
IT50RD	MS3368-3-9C	10.0	44.0	29.0	26.3	205.0	4.7	225	TAG26-21TD1	PA66	Natural (NA)	50 pcs.	111-85219
IT50RT	MS3368-4-9D	10.0	44.0	46.0	26.3	205.0	4.7	225	TAG43-21TD1	PA66	Natural (NA)	50 -pcs.	111-85119
IT18R	MS3368-5-9E	4.8	19.0	25.0	8.0	100.0	2.4	80	TAG23-06TD1	PA66	Natural (NA)	200 pcs.	111-81818

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Cable Protection for sharp-edged cut-out-sections

- **Flexiform Edge Protection grommet strip**

Flexiform grommet strip is used to protect cables routed through sharp-edged cut-out sections.

Features and Benefits

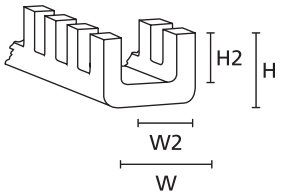
- Very flexible
- Easily and securely applied without adhesives
- Very high abrasion resistance
- Close-fitting rail for effective, orderly-looking protection

Optimal protection of cables and wires at panel edges.

NASM **NASM21266**

MATERIAL	Polytetrafluoroethylene (PTFE)	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +260 °C, intermittent +350 °C	-60 °C to +95 °C
Flammability	UL94 V0	UL94 HB
Specifications	PAN 6480-A	NASM21266, PAN 6480-A

RoHS ✓ HF ✓ RoHS ✓



TYPE	Standards	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51NA	NASM21266-1N	0.4 - 1.3	3.9	1.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21109
G51NB	NASM21266-2N	1.3 - 2.1	4.6	2.4	4.3	2.7	PA6	Natural (NA)	25 m	251-21209
G51NC	NASM21266-3N	2.1 - 3.3	5.7	3.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21309
G51ND	NASM21266-4N	3.3 - 4.8	8.4	5.1	6.2	4.3	PA6	Natural (NA)	25 m	251-21409
G51NE	NASM21266-5N	4.8 - 6.5	9.9	6.7	6.4	4.5	PA6	Natural (NA)	25 m	251-21509
G51NF	NASM21266-6N	6.5 - 8.1	11.4	8.3	6.8	4.8	PA6	Natural (NA)	25 m	251-21609
G51NG	NASM21266-7N	8.1 - 9.7	13.2	10.1	6.8	4.8	PA6	Natural (NA)	25 m	251-21709
G51NH	NASM21266-8N	9.7 - 12.9	16.4	13.2	6.8	4.8	PA6	Natural (NA)	25 m	251-21809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.
Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

TYPE	Standards	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51TA	NASM21266-1T	0.4 - 1.3	3.9	1.5	4.3	2.7	PTFE	Natural (NA)	3 m	251-30109
G51TB	NASM21266-2T	1.3 - 2.1	4.6	2.4	4.3	2.7	PTFE	Natural (NA)	3 m	251-30209
G51TC	NASM21266-3T	2.1 - 3.3	5.7	3.5	4.3	2.7	PTFE	Natural (NA)	3 m	251-30309
G51TD	NASM21266-4T	3.3 - 4.8	8.4	5.1	6.2	4.3	PTFE	Natural (NA)	3 m	251-30409
G51TE	NASM21266-5T	4.8 - 6.5	9.9	6.7	6.4	4.5	PTFE	Natural (NA)	3 m	251-30509
G51TF	NASM21266-6T	6.5 - 8.1	11.4	8.3	6.8	4.8	PTFE	Natural (NA)	3 m	251-30609
G51TG	NASM21266-7T	8.1 - 9.7	13.2	10.1	6.8	4.8	PTFE	Natural (NA)	3 m	251-30709
G51TH	NASM21266-8T	9.7 - 12.9	16.4	13.2	6.8	4.8	PTFE	Natural (NA)	3 m	251-30809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.
Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

Cable Ties inside serrated

- **T-Series**

These cable ties are used for routing, bundling and securing of cables, pipes and hoses.

Features and Benefits

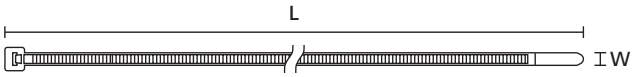
- Avaliable in a wide range of material and sizes
- Made from 100% high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simply to insert due to bent tail

T Series for bundling and securing of cables for a wide range of applications, available in various colours and materials.

NSA **NSA935401**

MATERIAL	Polyamide 6.6 (PA66)	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL94 V2	

HF ✓ RoHS ✓



T-Series.

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Recomm. Tools	Article-No.
T18R	NSA935401-03	2.5	100.0	22.0	80	PA66HS	Black (BK)	100 pcs	2;4-6;8	111-01250
T30R	NSA935401-04	3.5	150.0	35.0	135	PA66	Black (BK)	100 pcs	2;4-6;8	111-01540
	NSA935401-04	3.5	150.0	35.0	135	PA66HS	Black (BK)	100 pcs	2;4-6;8	111-01259
	NSA935401-04	3.5	150.0	35.0	135	PA66HS	Black (BK)	500 pcs	2;4-6;8	111-01460
T50R	NSA935401-05	4.6	200.0	50.0	225	PA66HS	Black (BK)	100 pcs	2-11	111-01252
T50I	NSA935401-06	4.6	300.0	85.0	225	PA66HS	Black (BK)	100 pcs	2-11	111-01254
T50L	NSA935401-08	4.6	390.0	110.0	225	PA66HS	Black (BK)	100 pcs	2-11	111-01272
T150R	NSA935401-10	7.6	365.0	100.0	670	PA66HS	Black (BK)	100 pcs	3;9-12	111-01255
T120L	NSA935401-12	7.6	760.0	225.0	535	PA66HS	Black (BK)	50 pcs	3;9-11	111-01256
T30LL	NSA935401-13	3.5	290.0	80.0	135	PA66HS	Black (BK)	1,000 pcs	2;4-6;8	111-01261
T50R	NSA935401-05G	4.6	200.0	50.0	225	PA66HS	Green (GN)	100 pcs	2-11	111-00839
T18R	NSA935401-03R	2.5	100.0	22.0	80	PA66HS	Red (RD)	1,000 pcs	2;4-6;8	111-01909
T30R	NSA935401-04R	3.5	150.0	35.0	135	PA66HS	Red (RD)	100 pcs	2;4-6;8	111-01409
T50R	NSA935401-05R	4.6	200.0	50.0	225	PA66HS	Red (RD)	100 pcs	2-11	111-01262
T50I	NSA935401-06R	4.6	300.0	85.0	225	PA66HS	Red (RD)	100 pcs	2-11	111-00840
T50L	NSA935401-08R	4.6	390.0	110.0	225	PA66HS	Red (RD)	100 pcs	2-11	111-00836
T120L	NSA935401-12R	7.6	760.0	225.0	535	PA66HS	Red (RD)	50 pcs	3;9-11	111-00837
T50R	NSA935401-05Y	4.6	200.0	50.0	225	PA66HS	Yellow (YE)	100 pcs	2-11	111-01214

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Cable Ties for temperatures up to + 105°C (heat stabilised)

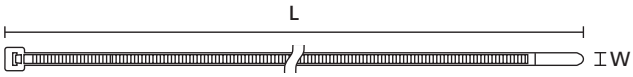
- **T-Series**

NSA **NSA940000**

T Series for bundling and securing of cables for a wide range of applications, available in various colours and materials.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL94 V2

HF ✓ RoHS ✓



T-Series.

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Recomm. Tools	Article-No.
T18R	NSA940000-23301	2.5	100.0	22.0	80	PA66HS	Orange (OG)	1,000 pcs.	2;4-6;8	111-01678
T30R	NSA940000-23302	3.5	150.0	35.0	135	PA66HS	Orange (OG)	100 pcs.	2;4-6;8	111-01679
T50R	NSA940000-23303	4.6	200.0	50.0	225	PA66HS	Orange (OG)	100 pcs.	2-11	111-01680
T50I	NSA940000-23304	4.6	300.0	85.0	225	PA66HS	Orange (OG)	100 pcs.	2-11	111-01681
T50L	NSA940000-23305	4.6	390.0	110.0	225	PA66HS	Orange (OG)	100 pcs.	2-11	111-01682
T120R (E)	NSA940000-23306	7.6	387.0	100.0	535	PA6HS	Orange (OG)	100 pcs.	3;9-12	111-01683
T120L	NSA940000-23307	7.6	760.0	225.0	535	PA66HS	Orange (OG)	50 pcs.	3;9-11	111-01684

All dimensions in mm. Subject to technical changes.Minimum Order Quantity (MOQ) may differ from package content.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Heat Shrinkable Tubing 2:1 flexible and coloured

- **HFT-A - self extinguishing**

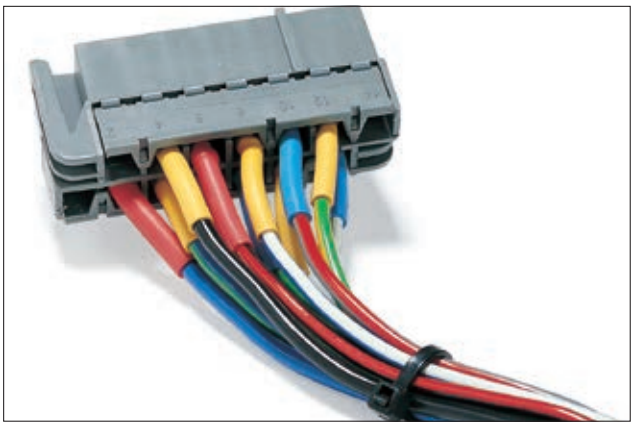
This high performance thin wall tubing is used extensively for electrical and mechanical protection. It is also well proven for sleeve marking to identify wiring circuits. It shrinks uniformly to form a permanent insulation covering. The transparent version is used for bundling and cable protection where visual inspection is required. It is often used as a see through protective sleeve over cable markers.

Features and Benefits

- Flexible heat shrink tubing
- Fast shrinking, easy handling, good mechanical strength
- Easy to print on
- Wide range of colours
- Internal diameters up to 4 inches (101.6 mm)
- UL-224 ,CSA listed and VG approved

NSA **NSA937211**

Heat Shrinkable Tubing 2:1



HFT-A conforms to major standards used in all Defence industries.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+100 °C
Longitudinal change after shrinkage	+5%/-10%
Dielectric Strength	20 kV/mm according to IEC 60684 P2
Flammability	Self extinguishing
Specifications	CSA, DEF STAN 59-97/3, MIL-DTL-23053/5C, NF F 00-608, SAE - AMS - DTL-23053 / 5C, UL224 125 °C 600V, VG 95343

RoHS

TYPE	Standards	Spld. Ø D min.	Size (imp.)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-3.2/1.6	NSA937211-002B	3.2	1/8 "	1.6	0.50	400 m	Black (BK)	VG 95343 T05 A 004 A	305-03200
HFT-A-4.8/2.4	NSA937211-003B	4.8	3/16 "	2.4	0.50	300 m	Black (BK)	VG 95343 T05 A 005 A	305-04800
HFT-A-6.4/3.2	NSA937211-004B	6.4	1/4 "	3.2	0.60	300 m	Black (BK)	VG 95343 T05 A 006 A	305-06400
HFT-A-9.5/4.8	NSA937211-005B	9.5	3/8 "	4.8	0.60	150 m	Black (BK)	VG 95343 T05 A007 A	305-09500
HFT-A-12.7/6.4	NSA937211-006B	12.7	1/2 "	6.4	0.60	100 m	Black (BK)	VG 95343 T05 A 008 A	305-12700
HFT-A-19.0/9.5	NSA937211-007B	19.0	3/4 "	9.5	0.80	50 m	Black (BK)	VG 95343 T05 A 009 A	305-19000
HFT-A-25.4/12.7	NSA937211-008B	25.4	1 "	12.7	0.90	50 m	Black (BK)	VG 95343 T05 A 010 A	305-25400
HFT-A-38.0/19.0	NSA937211-009B	38.0	1 "	19.0	1.00	50 m	Black (BK)	VG 95343 T05 A 011 A	305-38100
HFT-A-50.8/25.4	NSA937211-010B	51.0	2 "	25.4	1.10	35 m	Black (BK)	VG 95343 T05 A 012 A	305-50800
HFT-A-76.0/38.0	NSA937211-011B	76.0	3 "	38.0	1.30	25 m	Black (BK)	VG 95343 T05 A 013 A	305-76200
HFT-A-2.4/1.2	NSA937211-001B, NSA937211-010B	2.4	3/32 "	1.2	0.50	400 m	Black (BK)	VG 95343 T05 A 003 A	305-02400
	NSA937211-001D	2.4	3/32 "	1.2	0.50	100 m	Red (RD)	VG 95343 T05 A 003 C	305-02402
HFT-A-3.2/1.6	NSA937211-002D	3.2	1/8 "	1.6	0.50	100 m	Red (RD)	VG 95343 T05 A 004 C	305-03202
HFT-A-4.8/2.4	NSA937211-003D	4.8	3/16 "	2.4	0.50	75 m	Red (RD)	VG 95343 T05 A 005 C	305-04802
HFT-A-6.4/3.2	NSA937211-004D	6.4	1/4 "	3.2	0.60	75 m	Red (RD)	VG 95343 T05 A 006 C	305-06402
HFT-A-9.5/4.8	NSA937211-005D	9.5	3/8 "	4.8	0.60	50 m	Red (RD)	VG 95343 T05 A007 C	305-09502
HFT-A-12.7/6.4	NSA937211-006D	12.7	1/2 "	6.4	0.60	50 m	Red (RD)	VG 95343 T05 A 008 C	305-12702
HFT-A-19.0/9.5	NSA937211-007D	19.0	3/4 "	9.5	0.80	25 m	Red (RD)	VG 95343 T05 A 009 C	305-19002
HFT-A-25.4/12.7	NSA937211-008D	25.4	1 "	12.7	0.90	25 m	Red (RD)	VG 95343 T05 A 010 C	305-25402

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

TYPE	Standards	Spld. Ø D min.	Size (imp.)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-101.6/50.8	NSA937211-012D	101.6	4 "	50.8	1.40	25 m	Red (RD)	VG 95343 T05 A 014 C	305-91602
HFT-A-3.2/1.6	NSA937211-002L	3.2	1/8 "	1.6	0.50	100 m	White (WH)	VG 95343 T05 A 004 L	305-03209
HFT-A-6.4/3.2	NSA937211-004L	6.4	1/4 "	3.2	0.60	75 m	White (WH)	VG 95343 T05 A 006 L	305-06409
HFT-A-9.5/4.8	NSA937211-005L	9.5	3/8 "	4.8	0.60	50 m	White (WH)	VG 95343 T05 A007 L	305-09509
HFT-A-12.7/6.4	NSA937211-006L	12.7	1/2 "	6.4	0.60	50 m	White (WH)	VG 95343 T05 A 008 L	305-12709
HFT-A-19.0/9.5	NSA937211-007L	19.0	3/4 "	9.5	0.80	25 m	White (WH)	VG 95343 T05 A 009 L	305-19009
HFT-A-25.4/12.7	NSA937211-008L	25.4	1 "	12.7	0.90	25 m	White (WH)	VG 95343 T05 A 010 L	305-25409
HFT-A-38.0/19.0	NSA937211-009L	38.0	1 "	19.0	1.00	50 m	White (WH)	VG 95343 T05 A 011 L	305-38109
HFT-A-2.4/1.2	NSA937211-010L	2.4	3/32 "	1.2	0.50	100 m	White (WH)	VG 95343 T05 A 003 L	305-02409
HFT-A-50.8/25.4	NSA937211-010L	51.0	2 "	25.4	1.10	35 m	White (WH)	VG 95343 T05 A 012 L	305-50809
HFT-A-101.6/50.8	NSA937211-012L	101.6	4 "	50.8	1.40	25 m	White (WH)	VG 95343 T05 A014 L	305-91609

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Heat Shrinkable Tubing 2:1 - PVDF

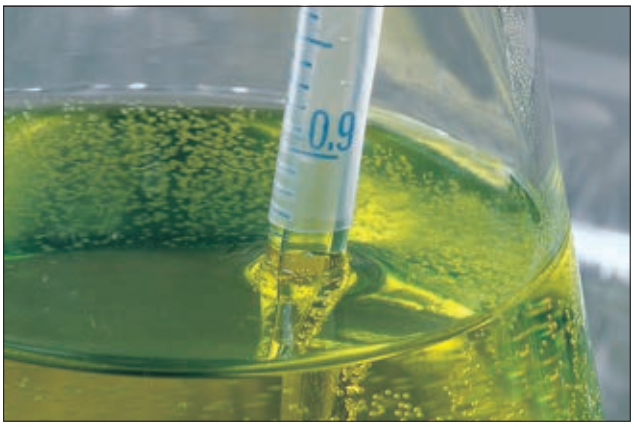
- **TK20**

Typical applications of this translucent tubing are where high-temperature performance is required. Also very suitable for applications that ask for visual inspection of covered components, or if a low friction surface is needed. TK20 is also used as oil stop for energy cables. This thin walled, translucent heat shrink tubing is often used for chemical applications.

Features and Benefits

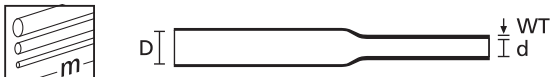
- Semi-rigid heat shrinkable tubing made of PVDF
- Thin walled and tough
- For higher temperature applications
- Very good mechanical strength, abrasion resistance and chemical resistance
- Meets various industrial standards
- Self extinguishing, UL 224 VW1 listed

NSA **NSA937494**



This thin walled, translucent heat shrink tubing is used for chemical applications.

MATERIAL	Polyvinylidene Fluoride (PVDF)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +175 °C
Min. Shrink Temperature	+175 °C
Longitudinal change after shrinkage	+/-10% max
Dielectric Strength	≥ 30 kV/mm min. according to ASTM D2171
Flammability	UL224 VW-1
Specifications	SAE - AMS - DTL-23053/8, UL224 150 °C 600V VW-1, VG 95343



Heat Shrinkable Tubing 2:1

RoHS

TYPE	Standards	Size (imp.)	Spld. Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Designation as per VG-Norm	Article-No.
TK20-2.4/1.2	NSA937494-001	3/32 "	2.4	1.2	0.25	1.2 m	Transparent (CL)	VG95343T05F003M	311-00249
TK20-3.2/1.6	NSA937494-002	1/8 "	3.2	1.6	0.25	1.2 m	Transparent (CL)	VG95343T05F004M	311-00329
TK20-4.8/2.4	NSA937494-003	3/16 "	4.8	2.4	0.25	1.2 m	Transparent (CL)	VG95343T05F005M	311-00489
TK20-6.4/3.2	NSA937494-004	1/4 "	6.4	3.2	0.30	1.2 m	Transparent (CL)	VG95343T05F006M	311-00649
TK20-12.7/6.4	NSA937494-006	1/2 "	12.7	6.4	0.30	1.2 m	Transparent (CL)	VG95343T05F008M	311-01279
TK20-19.1/9.5	NSA937494-007	3/4 "	19.1	9.5	0.43	1.2 m	Transparent (CL)	VG95343T05F009M	311-01909
TK20-25.4/12.7	NSA937494-008	1 "	25.4	12.7	0.48	1.2 m	Transparent (CL)	VG95343T05F010M	311-02549

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Heat Shrinkable Tubing - PTFE

- **TFE4 4:1**

TFE is ideal for high temperature applications, where resistance to aggressive fluids is required or a very thin walled tubing is needed, for example in pH-measuring instruments. TFE tubing is also used to reduce movement due to friction, covering cylinders for example.

Features and Benefits

- PTFE heat shrink tubing
- Very high temperature resistance
- Extra thin wall translucent tubing
- High abrasion resistance and good resistance against aggressive chemicals
- Available in either 2:1 (TFE2) or 4:1 (TFE4) shrink ratios

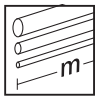
TFE is available in either 2:1 or 4:1 shrink ratios.

NSA **NSA937210**

MATERIAL	Polytetrafluoroethylene (PTFE)
Operating Temperature	-70 °C to +260 °C
Minimum Shrink Temperature	+350 °C
Longitudinal change after shrinkage	-20% max.
Dielectric Strength	40 kV/mm according to DIN 53481
Flammability	Non burning

RoHS

Cut lengths available on request. Please contact us!



Heat Shrinkable Tubing 4:1

TYPE	Standards	Supplied Ø D min.	Recov. Ø d max.	Size (imperial)	Wall (WT)	Length (L)	Colour	Shrink Ratio	Article-No.
TFE4-5/64	NSA937210MB0100	2.0	0.6	5/64 "	0.22	1.2 m	Transparent (CL)	4:1	339-00209
TFE4-1/8	NSA937210MB0200	3.2	0.9	1/8 "	0.25	1.2 m	Transparent (CL)	4:1	339-00329
TFE4-1/4	NSA937210MB0300	6.4	1.6	1/4 "	0.30	1.2 m	Transparent (CL)	4:1	339-00649
TFE4-3/8	NSA937210MB0400	9.5	2.4	3/8 "	0.30	1.2 m	Transparent (CL)	4:1	339-00959
TFE4-1/2	NSA937210MB0500	12.7	3.7	1/2 "	0.38	1.2 m	Transparent (CL)	4:1	339-01279
TFE4-5/8	NSA937210MB0600	15.9	4.5	5/8 "	0.38	1.2 m	Transparent (CL)	4:1	339-01599
TFE4-3/4	NSA937210MB0700	19.1	5.7	3/4 "	0.38	1.2 m	Transparent (CL)	4:1	339-01909
TFE4-1	NSA937210MB0800	25.4	7.1	1 "	0.38	1.2 m	Transparent (CL)	4:1	339-02549
TFE4-1 1/4	NSA937210MB0900	31.8	8.8	1 "	0.38	1.2 m	Transparent (CL)	4:1	339-03189

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Cable Protection for sharp-edged cut-out-sections

- **Flexiform Edge Protection grommet strip**

Flexiform grommet strip is used to protect cables routed through sharp-edged cut-out sections.

Features and Benefits

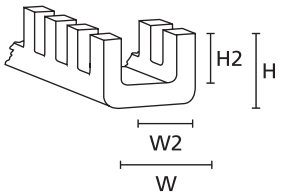
- Very flexible
- Easily and securely applied without adhesives
- Very high abrasion resistance
- Close-fitting rail for effective, orderly-looking protection

Optimal protection of cables and wires at panel edges.

NSA **NSA939510**

MATERIAL	Polyamide 6 (PA6)
Operating Temperature	-60 °C to +95 °C
Flammability	UL94 HB
Specifications	NASM21266, PAN 6480-A

HF ✓ RoHS ✓



TYPE	Standards	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51NA	NSA939510AN	0.4 - 1.3	3.9	1.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21109
G51NB	NSA939510BN	1.3 - 2.1	4.6	2.4	4.3	2.7	PA6	Natural (NA)	25 m	251-21209
G51NC	NSA939510CN	2.1 - 3.3	5.7	3.5	4.3	2.7	PA6	Natural (NA)	25 m	251-21309
G51ND	NSA939510DN	3.3 - 4.8	8.4	5.1	6.2	4.3	PA6	Natural (NA)	25 m	251-21409
G51NE	NSA939510EN	4.8 - 6.5	9.9	6.7	6.4	4.5	PA6	Natural (NA)	25 m	251-21509
G51NF	NSA939510FN	6.5 - 8.1	11.4	8.3	6.8	4.8	PA6	Natural (NA)	25 m	251-21609
G51NG	NSA939510GN	8.1 - 9.7	13.2	10.1	6.8	4.8	PA6	Natural (NA)	25 m	251-21709
G51NH	NSA939510HN	9.7 - 12.9	16.4	13.2	6.8	4.8	PA6	Natural (NA)	25 m	251-21809

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.
Flexiform grommet strips are not self-adhesive and therefore not suitable for outer edges.

Lacing cord made of polyamide 6

- **Lacing cord LCHT1A25NA**

Features and Benefits

- General purpose lacing cord with high tensile strength

NSA **NSA8420**

Lacing cord LCHT1A25NA.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-55 °C to +121 °C
Specifications	MIL-T-43435, NSA8420

RoHS

TYPE	Standards	Nominal Ø	N	Weight	Finish	Colour	Reel Length	Article-No.
LCHT1A25NA	NSA8420-0	2.5	1,250	2.84 g/m	A = Uncoated	Natural (NA)	200 m	174-00227

All dimensions in mm. Subject to technical changes.

Lacing cord made of meta-aramide

- **Lacing cord LCHT5A30NA**

Features and Benefits

- Excellent resistance to high temperatures
- Flame resistant
- Very good tensile strength

NSA **NSA8420**

Lacing cord LCHT5A30NA

MATERIAL	Meta-Aramide
Operating Temperature	-55 °C to +260 °C, intermittent +360 °C
Specifications	A-A-52084, NSA8420

RoHS

TYPE	Standards	Nominal Ø	N	Weight	Finish	Colour	Reel Length	Article-No.
LCHT5A30NA	NSA8420-5	3.0	1,380	5.54 g/m	A = Uncoated	Natural (NA)	100 m	174-00230

All dimensions in mm. Subject to technical changes.

Lacing tape made of polyamide 6

- **Lacing tape LTHT1B2NA and LTHT1B3NA**

Features and Benefits
- High tensile strength
- Surface finishing with fungicide

NSA **NSA8420**

Lacing tape of the LTHT1B series.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-55 °C to +121 °C
Specifications	A-A-52080, NSA8420

RoHS

TYPE	Standards	Width (W)	Thickness (T)	N	Weight	Finish	Colour	Reel Length	Article-No.
LTHT1B3NA	NSA8420-3	2.3	0.30	226	0.4 g/m	B = Microcrystalline fungicide wax	Natural (NA)	500 m	174-00020
LTHT1B2NA	NSA8420-4	3.6	0.30	362	0.7 g/m	B = Microcrystalline fungicide wax	Natural (NA)	250 m	174-00229

All dimensions in mm. Subject to technical changes.

Lacing tape made of polyester

- **Lacing tape LTHT2E4BK**

Features and Benefits
- High tensile strength
- Vinyl chloride surface finishing provides good abrasion resistance

NSA **NSA8420**

Lacing cord LTHT2E4BK.

MATERIAL	Polyester (PET)
Operating Temperature	-67 °C to +177 °C
Specifications	A-A-52081, NSA8420

RoHS

TYPE	Standards	Width (W)	Thickness (T)	N	Weight	Finish	Colour	Reel Length	Article-No.
LTHT2E4BK	NSA8420-8	1.5	0.30	113	0.6 g/m	E = Vinyl	Black (BK)	500 m	174-00024

All dimensions in mm. Subject to technical changes.

Lacing tape made of PTFE

- **Lacing tape LTHT3A2NA and LTHT3A4NA**

Features and Benefits

- Excellent resistance to high temperatures
- Very good chemical resistance

NSA **NSA8420**

Lacing cord of the LTHT3A series.

MATERIAL	Polytetrafluoroethylene (PTFE), high tenacity multifilaments
Operating Temperature	-73 °C to +232 °C
Specifications	A-A-52082, NSA8420

RoHS

TYPE	Standards	Width (W)	Thickness (T)	N	Weight	Finish	Colour	Reel Length	Article-No.
LTHT3A4NA	NSA8420-1	1.6	0.33	67	0.6 g/m	A = Uncoated	Natural (NA)	1,000 m	174-00011
LTHT3A2NA	NSA8420-2	2.7	0.33	133	1.2 g/m	A = Uncoated	Natural (NA)	700 m	174-00012

All dimensions in mm. Subject to technical changes.

Lacing tape made of glass fibre

- **Lacing tape LTHT4C2NA**

Features and Benefits

- High tensile strength
- Synthetic rubber surface finishing provides very good knotting characteristics

NSA **NSA8420**

Lacing tape LTHT4C2NA.

MATERIAL	Glass Fibre (GF)
Operating Temperature	-55 °C to +427 °C
Specifications	A-A-52083, NSA8420

RoHS

TYPE	Standards	Width (W)	Thickness (T)	N	Weight	Finish	Colour	Reel Length	Article-No.
LTHT4C2NA	NSA8420-7	3.2	0.40	889	0.6 g/m	D = PTFE	Natural (NA)	250 m	174-00253

All dimensions in mm. Subject to technical changes.

Silicone band

- **SI band**

Silicone band is used where electrical cable bundles are attached to connectors.

Features and Benefits

- Very good temperature and flammability characteristics

NSA **NSA935403**

SI silicone band.

MATERIAL	Silicone (SI)
Operating Temperature	-40 °C to +180 °C, intermittent +250 °C
Shore Hardness A	60±5
Flammability	UL94 V0
Specifications	NSA935403

RoHS

TYPE	Standards	Width (W)	Thickness (T)	Colour	Reel Length	Article-No.
SI Band	NSA935403-01	19.0	1.00	Brown (BN)	100 m	253-19101

All dimensions in mm. Subject to technical changes.

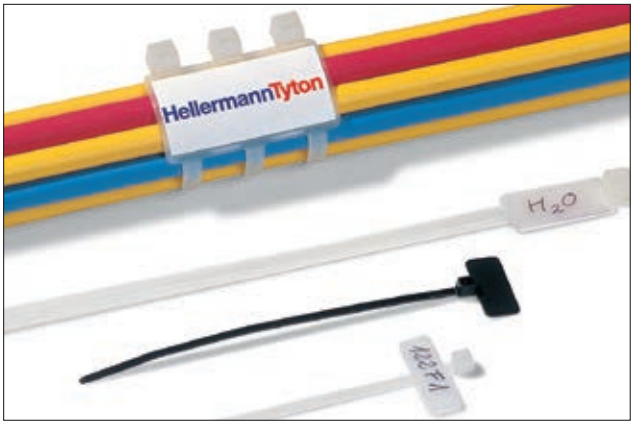
Identification ties and plates for marking cable bundles

- **IT Ties**

One of the major benefits is the ability to both secure and identify cable bundles at different times.

Features and Benefits

- Identification ties made of Polyamide 6.6, heat stabilised
- For simple identification and securing of cable bundles in one step
- Printable labels are available for a professional finish
- Manual or temporary marking is possible with an indelible pen (T82S-BK / T82R-RD)

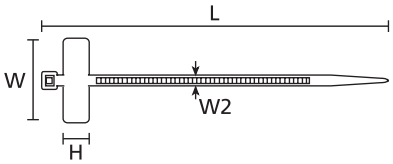


A clearly better way of identifying cables and pipes.

NSA **NSA935402**

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +125 °C
Flammability	UL94 V2
Specifications	Cage Code 53421, DIN 30015953, SAE - AS33681, UL-ZODZ2.E64139

HF ✓ RoHS ✓



IT18R

TYPE	Standards	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)	N	Rec. Labels	Material	Colour	Pack Cont.	Article-No.
IT18R	NSA935402-51	4.8	19.0	25.0	8.0	100.0	2.4	80	TAG23-06TD1	PA66HS	Natural (NA)	200	111-81818

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

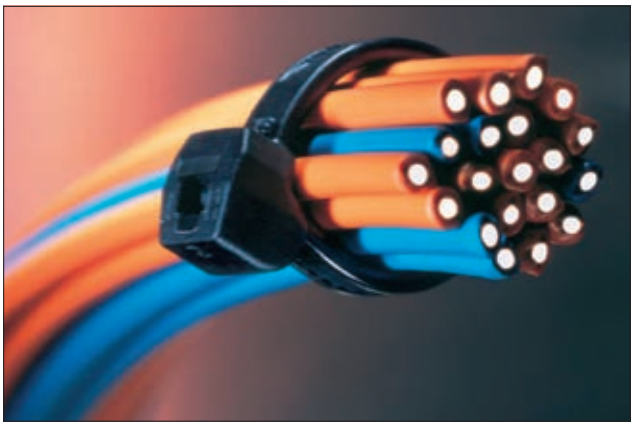
Cable Ties for thin-walled bundles

- **OS-Series**

OS-Series cable ties are used in many areas where thin-walled or soft insulation wires and cable are being installed, e. g. automotive and aircraft industry. OS ties made from PA66V0 material are suitable for applications where safety regulations are required, e.g. reduction of smoke and dangerous gases.

Features and Benefits

- Outside serrated cable tie with smooth surface to the bundle
- Tie follows the contours of the cable bundle perfectly
- Takes up less space due to curved head
- Easy insertion and high tensile strength
- For higher temperature or Limited Fire Hazard demand: Material PA46 or PA66V0
- Easy application either manually or with a processing tool

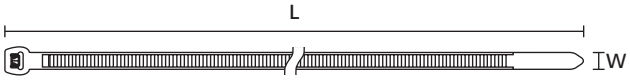


The contoured head needs less installation space, provides low insertion force and offers high strength.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL94 V2

PAN **PAN6481**

HF ✓ RoHS ✓



OS-Series

The new head design of the OS Series

TYPE	Standards	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Recomm. Tools	Article-No.
T18ROS	PAN6481B3-01B	2.5	100.0	1.6	20.0	80	PA66HS	Black (BK)	100 pcs.	2;4-6	118-04700
T30ROS	PAN6481B3-02B	3.4	145.0	1.6	35.0	135	PA66HS	Black (BK)	100 pcs.	2;4-6;8	118-04800
T30LOS	PAN6481B3-03B	3.4	200.0	1.6	50.0	135	PA66HS	Black (BK)	100 pcs.	2;4-6;8	118-04900
T50SOS	PAN6481B3-04B	4.6	150.0	1.6	35.0	225	PA66HS	Black (BK)	100 pcs.	2;4-8	118-05850
T50ROS	PAN6481B3-05B	4.6	200.0	1.6	50.0	225	PA66HS	Black (BK)	100 pcs.	2;4-8	118-05050
T50MOS	PAN6481B3-06B	4.6	245.0	1.6	66.0	225	PA66HS	Black (BK)	100 pcs.	2;4-8	118-00018
T50LOS	PAN6481B3-07B	4.6	384.0	1.6	110.0	225	PA66HS	Black (BK)	100 pcs.	2;4-8	118-05900
T120ROS	PAN6481B3-08B	7.6	385.0	5.0	105.0	535	PA66HS	Black (BK)	100 pcs.	3;9-12	118-00066

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

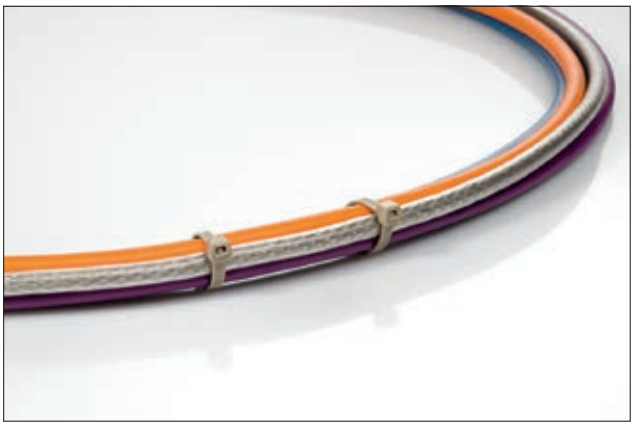
Cable Ties for high temperatures up to +240 °C

- **PEEK Ties, outside serrated**

PEEK ties have been designed for the use in hazardous environments. Their suitablility for high temperature applications makes them ideal for use in the drilling industry, railway, offshore or automotive industry. The excellent chemical and radium ray resistance is predestined for applications in medical engineering, chemical industry and power stations. With regard to the aerospace industry, PEEK ties are suitable due to their good weight to tensile strength ratio. Because of this combination of different properties, PEEK ties can replace metal solutions.

Features and Benefits

- For high temperature applications from -55° C up to +240° C
- Outside serrated cable tie with smooth surface to the bundle
- Close fit to the cable bundle due to the deepening head shape
- Easy insertion combined with high tensile strength
- Takes up less space due to the curved head
- Combines the performance of a metal tie with the ease of use of a polyamide cable tie
- Easy application either manually or with a processing tool

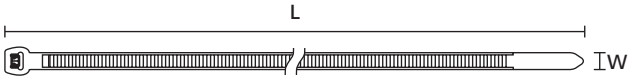


The contoured head takes up less space, gives a low insertion force and offers high strength.

MATERIAL	Polyetheretherketone (PEEK)
Operating Temperature	-55 °C to +240 °C
Flammability	UL94 V0
Specifications	GL, VDE

RoHS

PAN **PAN6481**



PEEK-Series

TYPE	Standards	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Colour	Material	Pack Cont.	Recomm. Tools	Article-No.
PT2A	PAN6481E5-02	3.4	145.0	4.0	35.0	230	Beige (BGE)	PEEK	100 pcs.	6;8	118-00032
PT3B	PAN6481E5-06	4.7	250.0	4.0	65.0	300	Beige (BGE)	PEEK	100 pcs.	6-8;10-12	118-00116

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

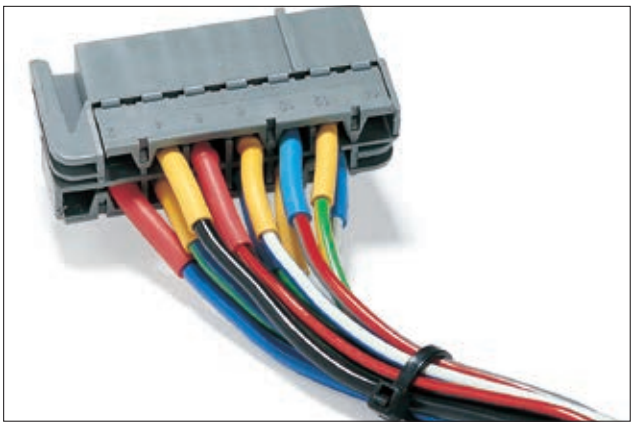
Heat Shrinkable Tubing 2:1 flexible and coloured

- **HFT-A - self extinguishing**

This high performance thin wall tubing is used extensively for electrical and mechanical protection. It is also well proven for sleeve marking to identify wiring circuits. It shrinks uniformly to form a permanent insulation covering. The transparent version is used for bundling and cable protection where visual inspection is required. It is often used as a see through protective sleeve over cable markers.

Features and Benefits

- Flexible heat shrink tubing
- Fast shrinking, easy handling, good mechanical strength
- Easy to print on
- Wide range of colours
- Internal diameters up to 4 inches (101.6 mm)
- UL-224 ,CSA listed and VG approved



HFT-A conforms to major standards used in all Defence industries.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Minimum Shrink Temperature	+100 °C
Longitudinal change after shrinkage	+5%/-10%
Dielectric Strength	20 kV/mm according to IEC 60684 P2
Flammability	Self extinguishing
Specifications	CSA, DEF STAN 59-97/3, MIL-DTL-23053/5C, NF F 00-608, SAE - AMS - DTL-23053 / 5C, UL224 125 °C 600V, VG 95343

PAN **PAN6493**

RoHS

Heat Shrinkable Tubing 2:1

TYPE	Standards	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-3.2/1.6	PAN6493A	3.2	1/8 "	1.6	0.50	400 m	Black (BK)	VG 95343 T05 A 004 A	305-03200
	PAN6493AA	3.2	1/8 "	1.6	0.50	100 m	Red (RD)	VG 95343 T05 A 004 C	305-03202
	PAN6493AB	3.2	1/8 "	1.6	0.50	100 m	Blue (BU)	VG 95343 T05 A 004 G	305-03206
	PAN6493AC	3.2	1/8 "	1.6	0.50	100 m	Yellow (YE)	VG 95343 T05 A 004 E	305-03204
	PAN6493AE	3.2	1/8 "	1.6	0.50	100 m	White (WH)	VG 95343 T05 A 004 L	305-03209
HFT-A-4.8/2.4	PAN6493B	4.8	3/16 "	2.4	0.50	300 m	Black (BK)	VG 95343 T05 A 005 A	305-04800
	PAN6493BA	4.8	3/16 "	2.4	0.50	75 m	Red (RD)	VG 95343 T05 A 005 C	305-04802
	PAN6493BB	4.8	3/16 "	2.4	0.50	75 m	Blue (BU)	VG 95343 T05 A 005 G	305-04806
	PAN6493BC	4.8	3/16 "	2.4	0.50	75 m	Yellow (YE)	VG 95343 T05 A 005 E	305-04804
	PAN6493BE	4.8	3/16 "	2.4	0.50	75 m	White (WH)	VG 95343 T05 A 005 L	305-04809
HFT-A-6.4/3.2	PAN6493C	6.4	1/4 "	3.2	0.60	300 m	Black (BK)	VG 95343 T05 A 006 A	305-06400
	PAN6493CA	6.4	1/4 "	3.2	0.60	75 m	Red (RD)	VG 95343 T05 A 006 C	305-06402
	PAN6493CB	6.4	1/4 "	3.2	0.60	75 m	Blue (BU)	VG 95343 T05 A 006 G	305-06406
	PAN6493CC	6.4	1/4 "	3.2	0.60	75 m	Yellow (YE)	VG 95343 T05 A 006 E	305-06404
	PAN6493CE	6.4	1/4 "	3.2	0.60	75 m	White (WH)	VG 95343 T05 A 006 L	305-06409

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

TYPE	Standards	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
HFT-A-9.5/4.8	PAN6493D	9.5	3/8 "	4.8	0.60	150 m	Black (BK)	VG 95343 T05 A007 A	305-09500
	PAN6493DA	9.5	3/8 "	4.8	0.60	50 m	Red (RD)	VG 95343 T05 A007 C	305-09502
	PAN6493DB	9.5	3/8 "	4.8	0.60	50 m	Blue (BU)	VG 95343 T05 A007 G	305-09506
	PAN6493DC	9.5	3/8 "	4.8	0.60	50 m	Yellow (YE)	VG 95343 T05 A007 E	305-09504
	PAN6493DE	9.5	3/8 "	4.8	0.60	50 m	White (WH)	VG 95343 T05 A007 L	305-09509
HFT-A-12.7/6.4	PAN6493E	12.7	1/2 "	6.4	0.60	100 m	Black (BK)	VG 95343 T05 A 008 A	305-12700
	PAN6493EA	12.7	1/2 "	6.4	0.60	50 m	Red (RD)	VG 95343 T05 A 008 C	305-12702
	PAN6493EB	12.7	1/2 "	6.4	0.60	50 m	Blue (BU)	VG 95343 T05 A 008 G	305-12706
	PAN6493EC	12.7	1/2 "	6.4	0.60	50 m	Yellow (YE)	VG 95343 T05 A 008 E	305-12704
	PAN6493EE	12.7	1/2 "	6.4	0.60	50 m	White (WH)	VG 95343 T05 A 008 L	305-12709
HFT-A-19.0/9.5	PAN6493F	19.0	3/4 "	9.5	0.80	50 m	Black (BK)	VG 95343 T05 A 009 A	305-19000
	PAN6493FA	19.0	3/4 "	9.5	0.80	25 m	Red (RD)	VG 95343 T05 A 009 C	305-19002
	PAN6493FB	19.0	3/4 "	9.5	0.80	25 m	Blue (BU)	VG 95343 T05 A 009 G	305-19006
	PAN6493FC	19.0	3/4 "	9.5	0.80	25 m	Yellow (YE)	VG 95343 T05 A 009 E	305-19004
	PAN6493FE	19.0	3/4 "	9.5	0.80	25 m	White (WH)	VG 95343 T05 A 009 L	305-19009
HFT-A-25.4/12.7	PAN6493G	25.4	1 "	12.7	0.90	50 m	Black (BK)	VG 95343 T05 A 010 A	305-25400
	PAN6493GA	25.4	1 "	12.7	0.90	25 m	Red (RD)	VG 95343 T05 A 010 C	305-25402
	PAN6493GB	25.4	1 "	12.7	0.90	25 m	Blue (BU)	VG 95343 T05 A 010 G	305-25406
	PAN6493GC	25.4	1 "	12.7	0.90	25 m	Yellow (YE)	VG 95343 T05 A 010 E	305-25404
	PAN6493GE	25.4	1 "	12.7	0.90	25 m	White (WH)	VG 95343 T05 A 010 L	305-25409
HFT-A-38.0/19.0	PAN6493H	38.0	1 "	19.0	1.00	50 m	Black (BK)	VG 95343 T05 A 011 A	305-38100
	PAN6493HA	38.0	1 "	19.0	1.00	50 m	Red (RD)	VG 95343 T05 A 011 C	305-38102
	PAN6493HB	38.0	1 "	19.0	1.00	50 m	Blue (BU)	VG 95343 T05 A 011 G	305-38106
	PAN6493HC	38.0	1 "	19.0	1.00	50 m	Yellow (YE)	VG 95343 T05 A 011 E	305-38104
	PAN6493HE	38.0	1 "	19.0	1.00	50 m	White (WH)	VG 95343 T05 A 011 L	305-38109
HFT-A-2.4/1.2	PAN6493X	2.4	3/32 "	1.2	0.50	400 m	Black (BK)	VG 95343 T05 A 003 A	305-02400
	PAN6493XA	2.4	3/32 "	1.2	0.50	100 m	Red (RD)	VG 95343 T05 A 003 C	305-02402
	PAN6493XB	2.4	3/32 "	1.2	0.50	100 m	Blue (BU)	VG 95343 T05 A 003 G	305-02406
	PAN6493XC	2.4	3/32 "	1.2	0.50	100 m	Yellow (YE)	VG 95343 T05 A 003 E	305-02404
	PAN6493XE	2.4	3/32 "	1.2	0.50	100 m	White (WH)	VG 95343 T05 A 003 L	305-02409
HFT-A-1.6/0.8	PAN6493Y	1.6	1/16 "	0.8	0.40	400 m	Black (BK)	VG 95343 T05 A 002 A	305-01600
	PAN6493YA	1.6	1/16 "	0.8	0.40	400 m	Red (RD)	VG 95343 T05 A 002 C	305-01602
	PAN6493YB	1.6	1/16 "	0.8	0.40	400 m	Blue (BU)	VG 95343 T05 A 002 G	305-01606
	PAN6493YC	1.6	1/16 "	0.8	0.40	400 m	Yellow (YE)	VG 95343 T05 A 002 E	305-01604
	PAN6493YE	1.6	1/16 "	0.8	0.40	400 m	White (WH)	VG 95343 T05 A 002 L	305-01609

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Heat Shrinkable Tubing 2:1 - PVDF

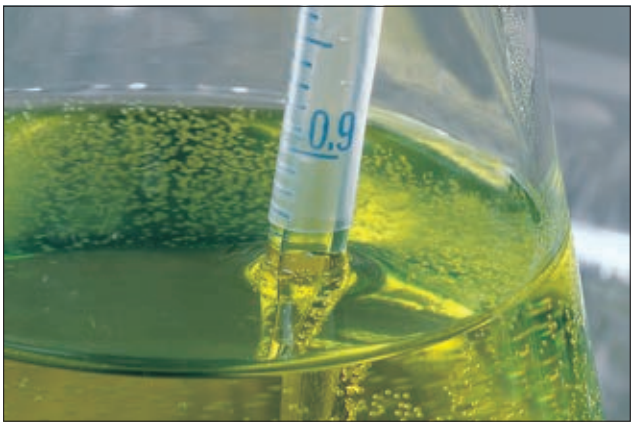
- **TK20**

Typical applications of this translucent tubing are where high-temperature performance is required. Also very suitable for applications that ask for visual inspection of covered components, or if a low friction surface is needed. TK20 is also used as oil stop for energy cables.

This thin walled, translucent heat shrink tubing is often used for chemical applications.

Features and Benefits

- Semi-rigid heat shrinkable tubing made of PVDF
- Thin walled and tough
- For higher temperature applications
- Very good mechanical strength, abrasion resistance and chemical resistance
- Meets various industrial standards
- Self extinguishing, UL 224 VW1 listed

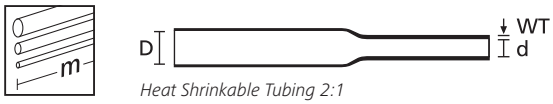


This thin walled, translucent heat shrink tubing is used for chemical applications.

PAN **PAN6491**

MATERIAL	Polyvinylidene Fluoride (PVDF)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +175 °C
Minimum Shrink Temperature	+175 °C
Longitudinal change after shrinkage	+/-10% max
Dielectric Strength	≥ 30 kV/mm min. according to ASTM D2171
Flammability	UL224 VW-1
Specifications	SAE - AMS - DTL-23053 / 8, UL224 150 °C 600V VW-1, VG 95343

RoHS



Heat Shrinkable Tubing 2:1

TYPE	Standards	Size (imperial)	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Designation as per VG-Norm	Article-No.
TK20-3.2/1.6	PAN6491A	1/8 "	3.2	1.6	0.25	1.2 m	Transparent (CL)	VG95343T05F004M	311-00329
TK20-4.8/2.4	PAN6491B	3/16 "	4.8	2.4	0.25	1.2 m	Transparent (CL)	VG95343T05F005M	311-00489
TK20-6.4/3.2	PAN6491C	1/4 "	6.4	3.2	0.30	1.2 m	Transparent (CL)	VG95343T05F006M	311-00649
TK20-9.5/4.8	PAN6491D	3/8 "	9.5	4.8	0.30	1.2 m	Transparent (CL)	VG95343T05F007M	311-00959
TK20-12.7/6.4	PAN6491E	1/2 "	12.7	6.4	0.30	1.2 m	Transparent (CL)	VG95343T05F008M	311-01279
TK20-19.1/9.5	PAN6491F	3/4 "	19.1	9.5	0.43	1.2 m	Transparent (CL)	VG95343T05F009M	311-01909
TK20-25.4/12.7	PAN6491G	1 "	25.4	12.7	0.48	1.2 m	Transparent (CL)	VG95343T05F010M	311-02549
TK20-2.4/1.2	PAN6491X	3/32 "	2.4	1.2	0.25	1.2 m	Transparent (CL)	VG95343T05F003M	311-00249
TK20-1.6/0.8	PAN6491Y	1/16 "	1.6	0.8	0.25	1.2 m	Transparent (CL)	VG95343T05F002M	311-00169

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

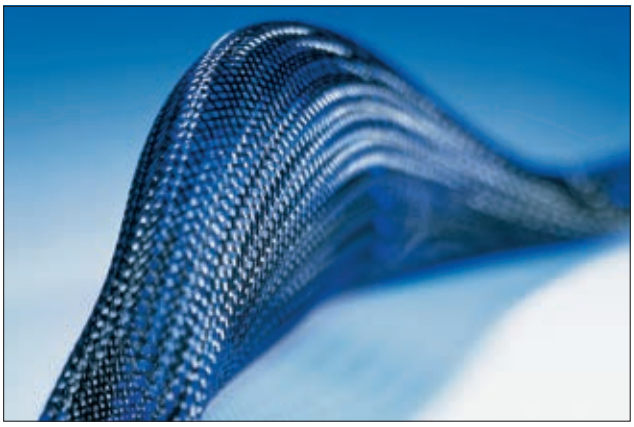
Halar® braided sleeving

- **Helagaine HEGHR**

HelaGaine HEGHR offers mechanical protection wherever superior resistance to high temperatures, chemicals or fire are required.

Features and Benefits

- Made of Halar®
- Highly flexible
- Expansion ration of 3:1
- Excellent resistance to high temperatures
- Good resistance to chemicals
- Good flame resistance
- Easy to apply over irregular shapes
- Good abrasion protection



Helagaine HEGHR braided sleeving.

MATERIAL	Ethylene ChloroTriFluoroEthylene (E/CTFE)

PAN **PAN6480**

RoHS

TYPE	Standards	Bundle Ø min.	Bundle Ø max.	Colour	Article-No.
HEGHR 6	PAN6480D3-64-02	3.0	9.0	Black (BK)	890-31280
HEGHR 12	PAN6480D3-127-02	6.4	19.1	Black (BK)	890-31274
HEGHR20	PAN6480D3-190-02	12.0	27.0	Black (BK)	890-31276
HEGHR 30	PAN6480D3-300-02	19.1	44.5	Black (BK)	890-31275
HEGHR 45	PAN6480D3-476-02	30.0	60.0	Black (BK)	890-31279

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content
General linguistic usage for raw material E/CTFE is Halar® which is a registered trademark of Solvay Specialty Polymers..

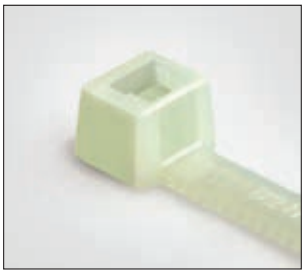
Cable Ties for temperatures up to + 105°C (heat stabilised)

- **T-Series in PA66HS**

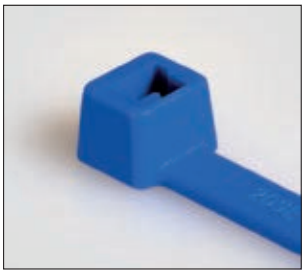
These cable ties are used for routing, bundling and securing of cables, pipes and hoses.

Features and Benefits

- Avaliable in a wide range of material and sizes
- Made from 100% high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simply to insert due to bent tail



T-Series in PA66HS.

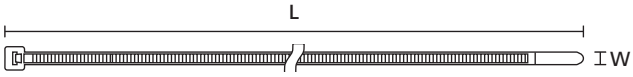


T-Series in E/TFE.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL94 V2
Specifications	DIN 30015954, UL-ZODZ2.E85319, VG U48/04101

HF ✓ RoHS ✓

STD **STD78750**



T-Series.

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Recomm. Tools	Article-No.
T18R	STD 78750-00	2.5	100.0	22.0	80	PA66HS	Natural (NA)	100 pcs.	2;4-6;8	111-01959
T30R	STD 78750-01	3.5	150.0	35.0	135	PA66HS	Natural (NA)	100 pcs.	2;4-6;8	111-03259
T80R	STD 78750-02	4.7	210.0	55.0	355	PA66HS	Natural (NA)	100 pcs.	2-11	111-05059
T80L	STD 78750-04	4.7	390.0	110.0	355	PA66HS	Natural (NA)	100 pcs.	2-11	111-05459

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable Ties for higher chemical resistance and temperatures up to +170°C in E/TFE

- **T-Series in E/TFE**

MATERIAL	Ethylene Tetrafluoroethylene (E/TFE)
Operating Temperature	-80 °C to +170 °C
Flammability	UL94 V0

RoHS ✓

STD **STD78750**

TYPE	Standards	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Recomm. Tools	Article-No.
T50L	STD 78750A07	4.7	382.0	105.0	222	E/TFE	Aquamarine (AE)	100	2-11	111-01469
T120R	STD 78750A08	7.6	387.0	100.0	310	E/TFE	Aquamarine (AE)	50	3;9-11	111-01404

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Application Tool No.									
2	3	4	5	6	7	8	9	10	11
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9	MK9HT

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Adhesive for Heat Shrinkable Moulded Shapes

Adhesive Specifications

	W / W2	WM250	V9500	HMT200A
Adhesive	Hot melt adhesive	Hot melt adhesive	Two part, black, epoxy adhesive	Hot melt adhesive tape
Operating Temperature	-55 °C to +80 °C	-55 °C to +80 °C	-75 °C to +150 °C	-55 °C to +105 °C
Softening Point Adhesive	+95 °C	+95 °C		+110 °C
Supplied Form	pre-applied	pre-applied	cardridge	tape
Shelf life	5 years	5 years	18 months	5 years
Solvent Resistance	Fair under splash conditions	Fair under splash conditions	De-icing fluid: Excellent, Petrol: Excellent, Lubricating Oil: Excellent, Hydraulic Oil: Excellent	Fair under splash conditions

Materials for Heat Shrinkable Moulded Shapes

Material Specifications

	G	B7	B8	-9
Material	Fluid resistant elastomer	Semi-rigid flame retarted polyolefin	Semi-rigid flame retarded polyolefin	Modified elastomer blend
Operating Temperature	-75 °C to +150 °C	-55 °C to +135 °C	-55 °C to +100 °C	-55 °C to 120 °C
Minimum Shrink Temperature	+135 °C	+135 °C	+135 °C	+135 °C
Specification	DEF STAN 59-97, BSG198 Part 5	MIL-I-81765/1 Type 1, DEF STAN 59-97, BSG198 Part 5	EA-TS 09-11	SCX15112
Tensile Strength	15 MPa	13 MPa	15 MPa	12 MPa
Elongation at break	580 %	500 %	500 %	500 %
Dielectric Strength	14 kV/mm	14 kV/mm	15 kV/mm	20 kV/mm
Flammability for Material	excellent	excellent	good	excellent
Features and Benefits	Excellent resistance to fuels	Good physical and chemical resistance	Good physical and reasonable chemical resistance	Good physical and reasonable chemical resistance
Typical Application	Military and general high performance harnessing	Military and general high performance harnessing	Power/utility shapes	Military and general high performance harnessing

A wider range of material/adhesive combinations are available in the moulded shapes catalogue.

Order Example

Type:

XXX(X)-X(X)-XXXX(XX)

- **Adhesive**
- **Material**
- **Size**
- **Series**

Example:

2 1 6 - 3 - B 8 W

- **Adhesive W**
- **B8 Material**
- **Short version**
- **Series 200**

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HellermannTyton

Product solutions for the healthcare sector

HellermannTyton

Cable management product solutions that help maintain hygiene and safety

Hygiene, safety and identification of equipment and infrastructure are mandatory in the healthcare sector. Consequently, cable management products that support these requirements are essential accessories.

HellermannTyton products are used around the world to secure, guide, insulate, protect and reliably identify cables and equipment in medical, clinical, laboratory and food processing environments.

From decades of experience producing cable management solutions across all industries around the world, we understand your individual local needs in terms of safety, hygiene, quality assurance and quality control.

At HellermannTyton we are committed to meeting the highest standards in our business activities and processes, as well as in our environmental engagement. Consequently, you can count on our products and processes being certified to ISO 9001 and ISO 14001. Our solutions will also help you fulfil the requirements of EU-Regulation 2017/745 to uniquely identify and track medical devices.

HellermannTyton is an experienced development and production partner at your side

Why choose HellermannTyton? You can rely on our products to be simple to install, use and maintain. Our expertise helps you meet your efficiency and safety standards.

With over 80 years of experience manufacturing plastic parts by injection moulding and extrusion, HellermannTyton is able to offer you innovative standard, customised or optimised solutions for all your cable management needs.

Help where you need it – precisely how you need it

Our product development teams are present in all global regions and we manufacture at 17 sites in 14 countries. This enables us to serve all customers locally with the strength of our global knowledge.

If you can't find the ideal solution off-the-shelf, HellermannTyton is an experienced partner for the fulfilment of your customised part requirements.

Our project teams and designers are accustomed to complex, urgent and confidential requests.
They are ready to guide you on the ideal choice of material and geometry for parts that must meet industry-specific technical parameters.

Anti-microbial cable ties

MGT-Series

MGT-Series cable ties have excellent anti-bacterial, anti-fungal and anti-viral properties. These cable ties are used for bundling and holding cables or tubes for all applications in which microbial development is unacceptable. This attachment solution is ideal for hospitals, medical device manufacturers, pharmaceutical companies, etc.

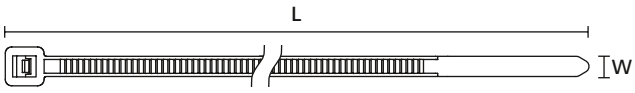
Hospital equipment fixated with an antibacterial cable tie.

Features and Benefits

- Anti-microbial effect against the majority of viruses, bacteria, moulds and algae found in our immediate environment. Our MGT cable ties have successfully passed anti-microbial tests, and the agent used in our products, Diiodomethyl-P-tolyl sulfone, is effective against Staphylococcus aureus and Escherichia coli
- Safe for the human body, as demonstrated via various toxicity tests, thanks to the material used in PA66 with an anti-bacterial / antifungal agent
- Good mechanical performance in return for a low insertion effort
- Secure and robust clamping performance on cables, thanks to internal serrations
- Fast and easy to position by hand, or using our EV07 manual tensioning tool

Applications

- All applications for which preventing microbial development is essential
- Bundling or attachment of cables or tubing for various equipment in hospitals or laboratories
- Suitable for use in aseptic environment



MGT-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
MGT100	2.5	100.0	22.0	80	PA66 antibacterial	Aquamarine (AE)	100 pcs.	111-01731
MGT150	3.5	152.0	36.0	135	PA66 antibacterial	Aquamarine (AE)	100 pcs.	111-01732
MGT200	4.6	202.0	50.0	225	PA66 antibacterial	Aquamarine (AE)	100 pcs.	111-01733

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable tie withstands repeated sterilisation cycles

ACB-Series

The ACB cable tie has been specially designed to withstand repeated physical sterilisation processes (autoclaving, gamma irradiation sterilisation). This fixing solution, designed for polyphenylsulfone, a material recognised by the health sector, can be used by hospitals, manufacturers of medical devices, pharmaceutical companies and sterilisation treatment services.

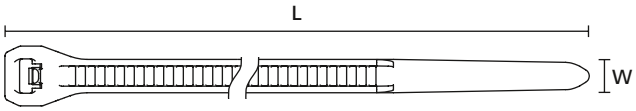
Cable tie can be used in autoclave and radiation sterilization.

Features and Benefits

- Excellent performance in a high temperature autoclave (up to + 160°C)
- Compatible with gamma irradiation sterilisation
- Superior resistance to water vapour and boiling water
- Good resistance to chemicals
- Excellent impact resistance
- Secure and robust hold, thanks to the internal serrations
- Fast and easy to position by hand, or using our EV07 manual tensioning tool

Applications

- All applications requiring sterilisation by autoclave or gamma irradiation
- Can be used for tube connectors intended for autoclaving
- Practical solution for attaching autoclavable labels to surgical instruments that are sterilised by autoclave
- Holds tubing in place for cleaning devices for medical apparatus (endoscope, autoclavable bag, etc.)



ACB-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
ACB100	3.4	100.0	20.0	135	PPSU	Light Brown (LTBN)	100 pcs.	111-09000

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Sterilisable cable tie formed to fit the shape of tubing

TBT-Series

The TBT cable tie withstands physical sterilisation processes. The chamfered head of this cable tie is a great asset, because it is formed to fit exactly the shape of the tubing, and thus enables secure coupling. This fixing solution for tubing fitments requiring autoclaving can be used by hospitals, manufacturers of medical devices, pharmaceutical companies and sterilisation treatment services.

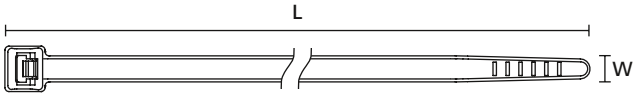
Fixation of artificial heart-lung lines with a Cable Tie.

Features and Benefits

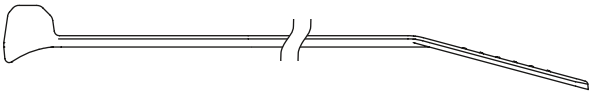
- Chamfered head ensures secure and damage-free hold around the entire perimeter of the tubing, and for each connector
- Internal serration
- Excellent performance in a high temperature autoclave (up to +150°C)
- Excellent resistance to chemicals
- Resistant to abrasion
- Fast and easy to position by hand, or using our EV07 manual tensioning tool

Applications

- All applications using an autoclave process
- Can be used for tube connectors requiring autoclaving



TBT-Series



Curved head design of TBT-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
TBT150	3.9	150.0	36.0	240	PA9THS	White (WH)	100 pcs.	111-02208

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Sterilisable cable tie with smooth head

PT-Series

PEEK cable ties have been specially designed for use in restrictive and demanding environments. Their excellent performance at high temperatures renders them particularly suitable for autoclaving medical devices and products. This fixing solution can be used by hospitals, manufacturers of medical devices, pharmaceutical companies and sterilisation treatment services.

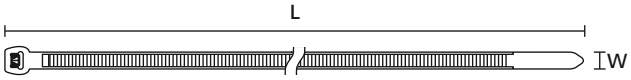
The contoured head takes up less space, gives a low insertion force and offers high strength.

Features and Benefits

- For high temperature applications from -55 °C up to +240 °C
- Outside serrated cable tie with smooth surface to the bundle
- Close fit to the cable bundle due to the deepening head shape
- Easy insertion combined with high tensile strength
- Takes up less space due to curved head design
- Combines the performance of a metal tie with the ease of use of a polyamide cable tie
- Manual and/or pneumatic tools available for greater process reliability

Applications

- All applications using autoclave process
- Can be used for tube connectors requiring autoclaving
- Enables a secure hold on tubing with thin or fragile insulation (e.g. tubing used to transfer solutions such as vaccines between containers etc.)



PEEK-Series

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
PT2A		3.4	145.0	4.0	35.0	230	PEEK	Beige (BGE)	100 pcs.	118-00032

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Cable tie locked by glass fibre pin

KR-Series, 1-Piece

KR-Series cable ties are distinguishable by the lack of serration on the strap and by their unique crimp lock system. These cable ties are particularly suited to applications where vibration is a factor. They make it possible to connect connectors for tubing, pipes, or various gussets in the medical sector.

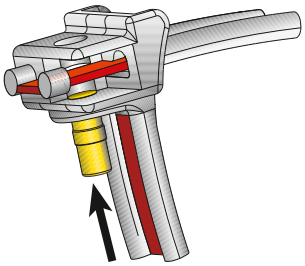
Features and Benefits

- Pin-locked patented cable tie system
- Cable tie with high tensile strength
- Strap without serration to avoid damage to connectors
- Cable tie can withstand environments subject to vibration, thanks to lateral ridges that run the length of the strap
- Cable tie resistant to both low and high temperatures
- Fast and easy to apply, thanks to our manual tensioning tool KR6/8

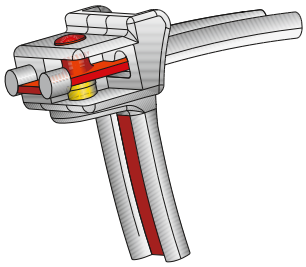
Applications

- All applications requiring the use of connectors
- For fixing cables or tube connectors to medical devices that require regular handling and movement from place to place

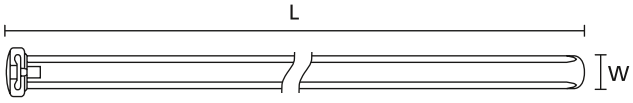
The KR-Series has been repeatedly proven in high vibration applications.



The unlocked head (yellow) of a KR-tie.



The cable tie (red) is locked into place with the pin.



Cable tie KR-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
KR6/35	6.1	360.0	93.0	490	PA66HS	Natural (NA)	50 pcs.	121-63555
KR8/21	8.0	210.0	47.0	785	PA66HS	Natural (NA)	50 pcs.	121-82155
KR8/33	8.0	337.0	86.0	785	PA66HS	Natural (NA)	50 pcs.	121-83355
KR8/43	8.0	426.0	105.0	785	PA66HS	Natural (NA)	50 pcs.	121-74359

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable Tie With Magnetic Closure

Cable Koala - Magnetic Cable Tie

The Cable Koala has been designed for use in a medical environment. The magnetic fastening and the soft, flexible material makes the Cable Koala ideal solution for managing cables and tubes around hospital beds and metal frameworks. With a smooth surface, there are no recesses where bacteria can build up like with regular cable ties, aiding infection prevention in a medical environment.

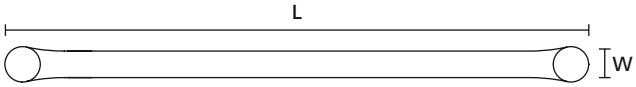
Hose with magentic CKL330 attached to the hospital bed.

Features and Benefits

- Soft, flexible and elastic
- Integrated magnets within each end of the cable tie strap
- Multi-purpose application - used on metal surfaces, wrapped around frameworks or attached to itself
- Reusable- easy fastening and releasable cable tie
- Smooth surfaces of the Cable Koala cable tie with no recesses where bacteria can be trapped- facilitating infection control
- Customisable- magnetic cable tie can be printed on for identification purposes i.e. hospital name
- Easily identifiable due to bright colour
- Chemical and weathering resistant

Applications

- Secures cables to the sides of hospital beds using magnets
- Accessory for temporary organisation of cables or tubing on portable medical devices that need to be moved from room to room



CKL-Series

TYPE	Width (W)	Length (L)	Material	Colour	Pack Cont.	Article-No.
CKL330	15.0	330.0	TPE	Yellow (YE)	5 pcs.	115-00140

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable ties inside serrated with one-hand release mechanism

Releasable cable ties offer a solution of choice for temporary application, for packaging or securing cables, tubing etc.

These cable ties offer the advantage of being able to be released and re-secured quickly and simply. The cable ties in the REZ and ORF series are distinguishable by their

opening system works either by pinching the wings or pressing the lever lock.

The REZ ties have a one-hand, simple release mechanism.

Resueable ORF-Tie with lever lock.

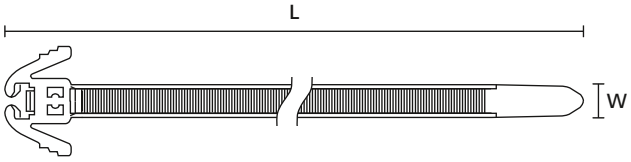
Features and Benefits

- Releasable and reusable cable ties
- Simple release system: either by pinching the wings (REZ series), or pressing the lever lock (ORF series)
- Release the cable tie with one hand, even with gloves
- Cable ties, serrated inside (REZ series) or serrated outside (ORF series)
- Easily recognisable, thanks to their colour
- Available in several colours and sizes

Applications

- All applications requiring temporary securing of cables, tubing etc.
- Packaging applications (closing, opening bags, packets etc.)
- Secures different cables and tubing to prevent them from touching the floor
- Enables the organisation of power cables for electrical equipment

REZ-Series

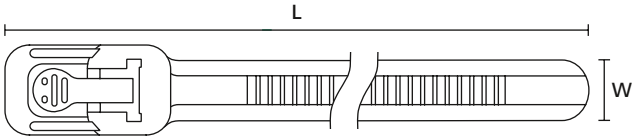


REZ-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
REZ200	4.7	200.0	50.0	135	PA66	Black (BK)	100 pcs.	115-40200
	4.7	200.0	50.0	135	PA66	Green (GN)	100 pcs.	115-00106

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

ORF-Series



ORF-Series

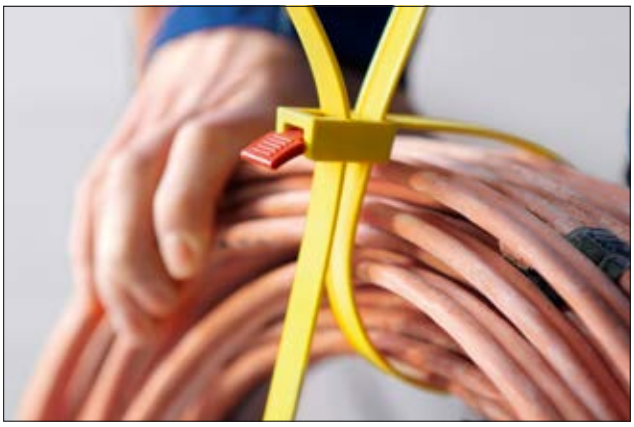
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
ORF200	7.4	202.0	45.0	222	PA66	Yellow (YE)	100 pcs.	115-00121
ORF300	7.4	301.0	78.0	222	PA66	Natural (NA)	100 pcs.	115-00122

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable ties with quick release mechanism

SpeedyTie

The versatility of the SpeedyTie means that it is suitable for a multitude of applications like electro installations, heating and ventilation, construction, exhibitions and trade fairs. Whether it is used for permanent or temporarily solutions the SpeedyTie is a very strong helping hand in every situation.



Excess tails can be neatly tucked away.

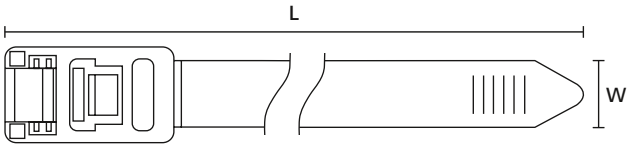
Features and Benefits

- Releasable and reusable cable tie
- Bears loads of up to 888 N (approx. 90 kg)
- 750 mm long for use in a wide variety of applications
- Can be used for parallel bundling
- Easy to handle when wearing work gloves
- Available in signal yellow and in black

Applications

- All applications requiring temporary securing of cables, tubing etc.
- Packaging applications (closing, opening bags, packets etc.)
- Secures different cables and tubing to prevent them from touching the floor
- Enables the organisation of power cables for electrical equipment

Patented



SpeedyTie

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
SpeedyTie (RTT750HR)	13.0	752.0	210.0	888	PA66	Yellow (YE), Red (RD)	25 pcs.	115-00000
	13.0	752.0	210.0	888	PA66	Yellow (YE), Red (RD)	5 pcs.	115-00001
	13.0	752.0	210.0	888	PA66HIR(S)	Black (BK), Red (RD)	5 pcs.	115-00030

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Fixing elements for tubes and harnesses with automatic locking feature, connectable

IAHC-Series, connectable

Offering a simple and secure method of attaching cables to panels. Originally designed for the automotive industry, these products are used in a wide range of applications with sheet metal panels across various industries.

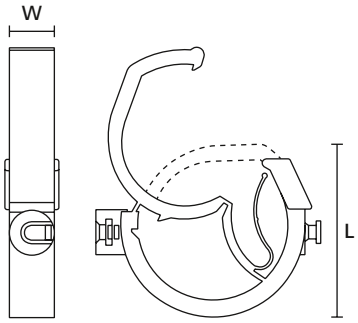
IAHC( )AH in combination with an IAHC( )T.

Features and Benefits

- Push and click closure
- Coupling elements of the IAHC variants allow parts to connect
- IAHC( )T can only be connected with another IAHC element
- Vibration resistant, rattlefree and secure hold of bundle
- In case of maintenance easy replacement of bundle possible
- 360 degree rotatable for guiding bundles in different directions

Applications

- Attachng cables to medical beds or medical devices
- Parallel cable routing for medical beds or medical devices



IAHC( )T *IAHC( )T*

TYPE	Drawing	Bundle Ø max.	Width (W)	Length (L)	Material	Colour	Article-No.
IAHC1T		13.0	10.0	23.0	PA66HIRHS	Black (BK)	151-02883
IAHC2T		20.0	10.0	30.0	PA66HIRHS	Black (BK)	151-00199
IAHC3T		28.0	10.0	40.0	PA66HIRHS	Black (BK)	151-02884

All dimensions in mm. Subject to technical changes.

Fixing elements for tubes and harnesses with automatic locking feature

Offering a simple and secure method of attaching cables to panels. Originally designed for the automotive industry, these products are used in a wide range of applications with sheet metal panels across various industries.

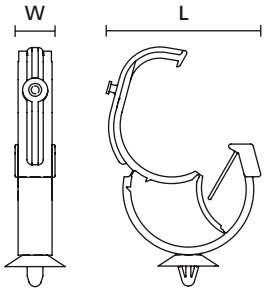
Features and Benefits

- Push and click closure for fixation of wires
- AHC( )SS und AHC( )SB can be pushed onto a 5.0 mm stud

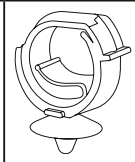
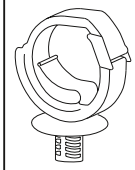
Applications

- Attaching cables to medical beds or medical devices
- Parallel cable routing for medical beds or medical devices

Automatic Harness Clip closed.



AHC( )AH *AHC( )AH*

TYPE	Drawing	Bundle Ø max.	Width (W)	Length (L)	Hole Ø (FH)	Panel Thickness	Material	Colour	Article-No.
AHC2AH		-	10.0	29.0	6,2 - 6,7	0.7 - 3.0	PA66HIRHS	Black (BK)	151-02881
AHC3SB		28.0	10.0	43.0	-	-	PA66HIRHS	Black (BK)	151-00372
AHC2BH		20.0	10.0	32.5	6,2 x 12,2	0.5 - 3.0	PA66HIRHS	Black (BK)	151-02882

All dimensions in mm. Subject to technical changes.

Cable tie mounts with high performance adhesive

Adhesive cable tie mounts offer a fast and simple fixing solution, suitable for applications where the use of screws and the pre-drilling that is then necessary, is neither practical nor advisable. Available in different materials, flat or flexible, square or rectangular, these plates can be adapted to all usage conditions imposed by every type of working environment.

Features and Benefits

- Acrylic adhesive with strong and fast adhesion properties
- Secure fixing onto numerous surfaces, including those with low surface energy
- Dense, waterproof adhesive, resistant to cleaning products
- Secure hold of cable tie, no sliding even on a vertical plane
- Possibility of replacing the cable tie without removing the cable tie
- advantageous in narrow installation space

Applications

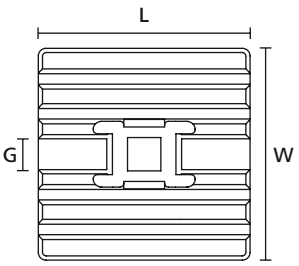
- All applications where drilling holes are not desirable or possible
- Attachment of cables, hoses and tubes to medical beds
- Securing tubing and cabling to medical devices in a hospital environment

Flexible cable tie mount, FlexTack in use on a concaved surface.

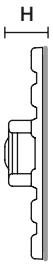
MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)

HF ✓ RoHS ✓

FlexTack-Series FMB for round and angled surfaces



Flexible Adhesive Mount FMB4APT-A (plan view)



Flexible Adhesive Mount FMB4APT-A (side view)

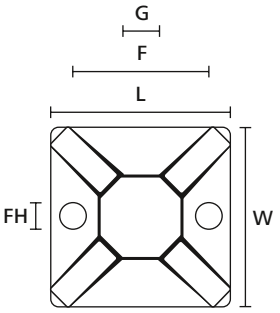
TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Cont.	Article-No.
FMB4APT-A	28.0	28.0	6.3	5.4	PA66HS	Black (BK)	mod. Acrylate	100 pcs.	151-02219
	28.0	28.0	6.3	5.4	PA66HS	White (WH)	mod. Acrylate	100 pcs.	151-02977

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

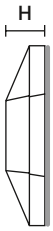
SolidTack-Series MB

MATERIAL	Polyamide 6.6 (PA66)
Adhesive	Acrylate with base of acrylic foam
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2 (excluding adhesive)

HF ✓ RoHS ✓



MB3-MB5 (plan view)



MB3-MB5 (side view)

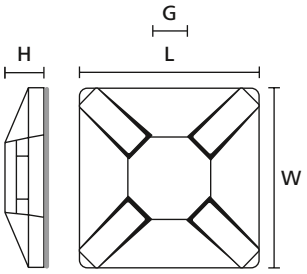
TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Fixing Hole Centres (F)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Cont.	Article-No.
MB3APT-A	19.0	19.0	3.8	3,1	13.2	4.4	PA66	White (WH)	mod. Acrylate	100 pcs.	151-02978
MB4APT-A	28.0	28.0	4.7	4,0	20.2	5.6	PA66	White (WH)	mod. Acrylate	100 pcs.	151-02246

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

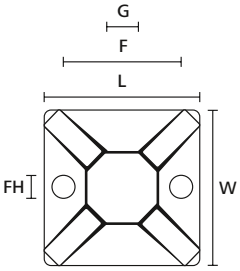
MB-Series square design, self-adhesive

MATERIAL	Polyamide 6.6 (PA66)
Adhesive	Synthetic rubber with base of polyethylene foam
Operating Temperature	-40 °C to +60 °C
Flammability	UL 94 V2 (excluding adhesive)

RoHS ✓



Cable Tie Mount MB2A (side and plan view)



MB3-MB5 (plan view)

MB3-MB5 (side view)

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Cont.	Article-No.
MB2A	13.0	13.0	4.1	-	2.7	PA66	White (WH)	Synthetic rubber	100 pcs.	151-01802
MB4A	28.0	28.0	4.7	4,0	5.4	PA66	White (WH)	Synthetic rubber	100 pcs.	151-28469

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. * Plastic box

Clips for easy cable routing

MOC-Series

The open clips of the MOC-Series are very useful in managing tubes and hoses. They offer a simple, adaptable solution for various tube diameters. These double rotatable clips make it possible to secure and separate two routes.

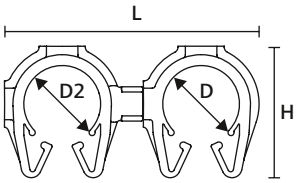
MOC-Series allows paralell routing of tubes, hoses and cables.

Features and Benefits

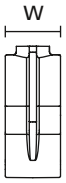
- Compatible with corrugated tubing
- Independent rotation enables adjustment of cable routing
- Retaining device to prevent accidental disengagement of tubing
- 12 sizes with different diameters (5.5 mm to 29 mm)
- Different orientations et combinations possible

Applications

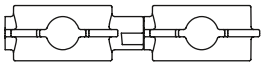
- Securing and parallel routing of corrugated respirator hoses
- Parallel cable routing for medical beds or medical devices
- Temporary fastening and replacement of tubes, hoses and cables possible



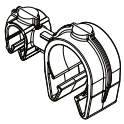
MOC-Series (Front view)



MOC-Series (Side view)



MOC-Series (Top view)

TYPE	Drawing	Ø (D)	Ø (D2)	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
MOC14FMOC14M		13.9	13.9	10.0	45.6	23.8	PA66HIRHSUV	Black (BK)	156-02349
MOC14FMOC22M		22.1	13.9	12.0	55.6	36.5	PA66HIRHSUV	Black (BK)	156-02352
MOC22FMOC22M		22.1	22.1	12.0	65.4	36.5	PA66HIRHSUV	Black (BK)	156-02490
MOC5FMOC14M		13.9	4.7	10.0	35.7	23.8	PA66HIRHSUV	Black (BK)	156-02287

All dimensions in mm. Subject to technical changes.

PTFE High temperature spiral binding

SBPTFE

The SBPTFE spiral frets enable the organisation and guiding of cables whilst also allowing diversions at any point and in any direction. Teflon-based, they are intended for electrical applications with high chemical constraints (e.g. cleaning products, aggressive fluids...) or those subjected to high temperatures.

Features and Benefits

- Resistant to very high temperatures
- Highly resistant to aggressive chemical agents (acids, alkalis and solvents)
- Non-stick, with good gliding properties
- Sterilisation by autoclave ethylene oxide (EtO)
- Highly resistant to abrasion

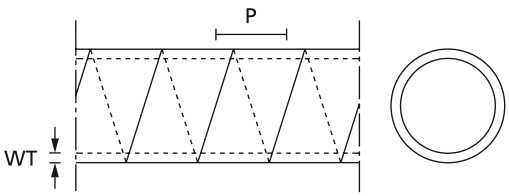
Applications

- Organisation, rearrangement and protection of cabling on medical devices.

Spiral binding SBPTFE is ideal for extreme conditions.

MATERIAL	Polytetrafluoroethylene (PTFE)
Operating Temperature	-60 °C to +260 °C, intermittent +350 °C
Flammability	UL 94 V0

RoHS



Spiral binding

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPTFE1.5	1.5	0.5	6.0	1.6	8	Natural (NA)	5 m	161-45000
SBPTFE4	4	0.7	7.8	5	20	Natural (NA)	5 m	161-45100
SBPTFE9	9	1.0	12.5	10	100	Natural (NA)	5 m	161-45200

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Helawrap cable cover

HWPP for health care sector

Helawrap is used to bundle and protect cables and wires in the electrical industry, panel building, machine building and many other industrial applications. Helawrap is the time-saving solution for industrial applications.

Features and Benefits

- Ideal solution for bundling, protecting and fixing cables
- Quick and effortless to apply
- Good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reapplied often
- Available in several colours and sizes
- Handy HAT applicator tool include

Application

- Organisation, rearrangement and protection of cabling on medical devices
- Routing and protection of height adjustment wiring in medical beds

Protecting and fixing cables with the Helawrap cable cover and accessory set.

MATERIAL	Polypropylene (PP)
Operating Temperature	-60 °C to +110 °C, intermittent +140 °C
Flammability	UL 94 HB

HF ✓ RoHS ✓

TYPE	Bundle Ø max.	Colour	Reel Length	Application Tool	Article-No.
HWPP8	9	Silver (SR)	25 m	HAT8	161-64103
HWPP16	16	Silver (SR)	25 m	HAT16	161-64203
HWPP20	21	Silver (SR)	25 m	HAT20	161-64303
HWPP25	27	Silver (SR)	25 m	HAT25	161-64403
HWPP30	32	Silver (SR)	25 m	HAT30	161-64503

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

Custom printed plastic cable ties

HellermannTyton uses the latest printing and moulding technologies to guarantee you personalised quality printing on our standard range of labelled cable ties and security seals Our cable ties can be personalised to your requirements: identification number, serial numbering, name of your establishment, date of calibration test, etc. The SD30 range comes with serrated insides, to secure the closure of your bags and packets, and the SE30 range is ideal for sealing doors or locking systems.

Features and Benefits

- Resistant to chemicals, detergents and solvents
- Resistant materials
- Available in several colours
- Products can be personalised on demand

Applications

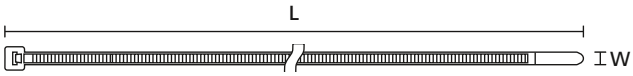
- Secure, personalised identification (respirator hoses, cords, etc.)
- Secure closure of cabinets containing sensitive products or materials
- Closure of bags possibly containing biological waste for example
- Securing medical equipment trolleys
- Ensuring traceability of sensitive materials (extinguishers, oxygen cylinders etc.)

T-Series and LK-Series.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2

HF ✓ RoHS ✓

T-Ties

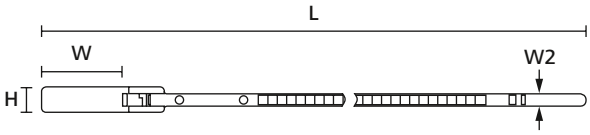


T-Series

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	N	Material	Colour	Pack Cont.	Article-No.
T50RPRN	1.5	50.0	4.6	200.0	225	PA66	Orange (OG)	100 pcs.	137-00148
	1.5	50.0	4.6	200.0	225	PA66	Black (BK)	100 pcs.	137-00150
	1.5	50.0	4.6	200.0	225	PA66	Yellow (YE)	100 pcs.	137-00151
	1.5	50.0	4.6	200.0	225	PA66	Light Blue (LTBU)	100 pcs.	137-00154

All dimensions in mm. Subject to technical changes.

S-Series

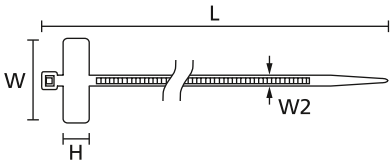


SD30

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)	N	Material	Colour	Pack Cont.	Article-No.
SE30PRN	10.0	38.0	27.0	8.0	230.0	3.8	135	PA66	Green (GN)	100 pcs.	142-00351
	10.0	38.0	27.0	8.0	230.0	3.8	135	PA66	Yellow (YE)	100 pcs.	142-00352
	10.0	38.0	27.0	8.0	230.0	3.8	135	PA66	Blue (BU)	100 pcs.	142-00353
	10.0	38.0	27.0	8.0	230.0	3.8	135	PA66	Red (RD)	100 pcs.	142-00354
SD30PRN	10.0	38.0	27.0	8.0	235.0	3.8	134	PA66	Green (GN)	100 pcs.	142-00347
	10.0	38.0	27.0	8.0	235.0	3.8	134	PA66	Yellow (YE)	100 pcs.	142-00348
	10.0	38.0	27.0	8.0	235.0	3.8	134	PA66	Blue (BU)	100 pcs.	142-00349
	10.0	38.0	27.0	8.0	235.0	3.8	134	PA66	Red (RD)	100 pcs.	142-00350

All dimensions in mm. Subject to technical changes.

IT Ties



IT18R

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)	N	Recommended Labels	Pack Cont.	Colour	Article-No.
IT18R	4.8	19.0	25.0	8.0	100.0	2.4	80	TAG23-06TD1	100 pcs.	Natural (NA)	111-81819
	6.0	22.0	25.0	8.0	100.0	2.3	80	TAG23-06TD1	100 pcs.	Natural (NA)	111-81821

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Plastic Plug Seals

Custom Printed PLS10SEQ, Plain SEQ and BP

In its range of products, HellermannTyton also offers laser printed products dedicated to the security of safety plugs. The PLS range has plugs with lever locks, which, when lifted and twisted, allow the upper and lower sections to be removed at pre-cut points.

These seals can be removed without the need for a cutting tool. PLS plugs can be adapted to fit most containers. Our safety plugs can also be personalised by our laser printing them before delivery.

Features and Benefits

- Resistant to chemicals, detergents and solvents
- Resistant materials
- Available in several colours
- Products can be personalised on demand

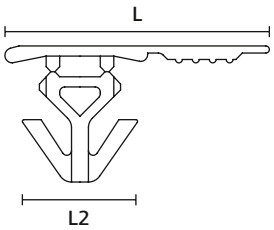
Application

- Securing your boxes and containers

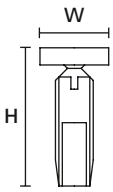
Easily sealing containers and boxes.

MATERIAL	Polypropylene (PP)
Operating Temperature	-40 °C to +115 °C
Flammability	UL 94 HB

HF ✓ RoHS ✓



PLS10



PLS10

TYPE	Width (W)	Height (H)	Length (L)	Length (L2)	Material	Colour	Pack Cont.	Article-No.
PLS10SEQ	10.0	19.9	37.6	16.5	PP	Green (GN)	500 pcs.	143-00095
	10.0	19.9	37.6	16.5	PP	Red (RD)	500 pcs.	143-00096
	10.0	19.9	37.6	16.5	PP	White (WH)	500 pcs.	143-00093
	10.0	19.9	37.6	16.5	PP	Yellow (YE)	500 pcs.	143-00094

All dimensions in mm. Subject to technical changes.

Tamper-evident security labelling, thermal transfer

Helatag 1203

These labels are ideal for marking and securing controlled products, such as boxes of medication, laboratory reagents, and boxes of consumables that are subject to use restrictions. To customise your labels, we offer our thermal printing solution, our TT431 or TT4030 printers, along with our TagPrint Pro editing software. You can thus easily print professional quality alphanumeric texts, barcodes, QR codes, logos and images.

Features and Benefits

- Resistant to water, alcohols, chemicals, and detergents
- If the label is removed, an indelible marking is deposited on the support
- Thermal printing

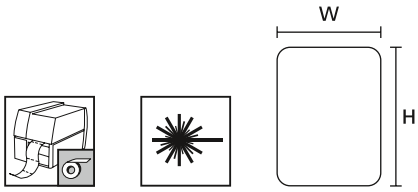
Applications

- Clear visualisation of whether a controlled product has been opened (boxes of medication, laboratory reagents, boxes of consumables: gloves, masks, etc.)
- Clear visualisation of whether a label has been torn from its support (securing closure of containers of biological waste and visualisation if they have possibly been opened)

Highly visible tamper evidence.

MATERIAL	Type 1203, Polyester, silver matt, tamper-proof (1203)
Operating Temperature	-40 °C to +120 °C
Curing Temperature	from +7 °C
Adhesive	Acrylic
Thickness of Foil	53 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, freezing fluid, brake fluid, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030

HF ✓ RoHS ✓



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6-1203-SR	12.7	11.1	101.6	6 pcs.	15,000 pcs.	Silver (SR)	596-71120
TAG15TD3-1203-SR	25.4	12.7	85.1	3 pcs.	7,500 pcs.	Silver (SR)	596-51203
TAG27TD2-1203-SR	38.1	19.1	85.1	2 pcs.	2,500 pcs.	Silver (SR)	596-71203
TAG67TD2-1203-SR	38.1	31.8	85.1	2 pcs.	1,000 pcs.	Silver (SR)	596-67120
TAG73TD1-1203-SR	50.8	25.4	55.0	1 pc.	2,000 pcs.	Silver (SR)	596-73120
TAG66TD1-1203-SR	50.8	36.5	56.8	1 pc.	1,000 pcs.	Silver (SR)	596-66120
TAG68TD1-1203-SR	63.5	25.4	69.0	1 pc.	2,000 pcs.	Silver (SR)	596-68120
TAG63TD1-1203-SR	63.5	38.1	70.0	1 pc.	1,000 pcs.	Silver (SR)	596-63120
TAG76TD1-1203-SR	63.5	50.8	70.0	1 pc.	500 pcs.	Silver (SR)	596-76120
TAG62TD1-1203-SR	76.2	50.8	82.0	1 pc.	500 pcs.	Silver (SR)	596-21203
TAG64TD1-1203-SR	88.9	36.5	95.0	1 pc.	1,000 pcs.	Silver (SR)	596-64120
TAG98TD1-1203-SR	101.0	160.0	105.0	1 pc.	250 pcs.	Silver (SR)	596-98120
TAG97TD1-1203-SR	101.6	74.0	106.0	1 pc.	500 pcs.	Silver (SR)	596-97120

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

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Laser printed labels

Helatag 1101

These white polyester labels assure professional print quality for your texts, barcodes logos, images, when used on your laser office printer.

All the templates for editing your labels are available on the HellermannTyton website.

Features and Benefits

- Resistant to water, alcohol, solvents and UV light.
- Operating temperatures between -40 °C and +150 °C
- Adhesion to smooth and flat surfaces
- Templates available on our website in Word and PDF format

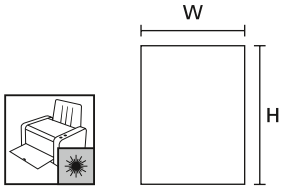
Applications

- Identification of biomedical equipment (artificial respirators, blood pressure monitors, oximeters, etc.)
- Ideal for the purposes of traceability, inventory and metrology.

Clearly identified labels ensure easy network wire and cable management.

MATERIAL	Type 1101, Polyester, white (1101)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	55 µm
Chem. Material Properties	Excellent resistance against water, alcohol, most oils, lubricants, fuels, aliphatic solvents, weak acid, salts, alkalis and UV light.

HF ✓ RoHS ✓



TYPE	Width (W)	Height (H)	Labels per Sheet	Sheets per Pack	Pack Cont.	Colour	Article-No.
TAG156LA4-1101-WH	10.2	10.2	532 pcs.	19 pcs.	10,000 pcs.	White (WH)	594-81101
TAG122LA4-1101-WH	15.0	9.0	372 pcs.	27 pcs.	10,000 pcs.	White (WH)	594-31101
TAG120LA4-1101-WH	15.2	6.4	528 pcs.	19 pcs.	10,000 pcs.	White (WH)	594-11101
TAG11LA4-1101-WH	16.5	5.1	605 pcs.	17 pcs.	10,000 pcs.	White (WH)	594-01101
TAG154LA4-1101-WH	17.0	9.0	341 pcs.	30 pcs.	10,000 pcs.	White (WH)	594-61101
TAG124LA4-1101-WH	19.0	11.0	260 pcs.	20 pcs.	5,000 pcs.	White (WH)	594-11017
TAG13LA4-1101-WH	19.1	6.4	440 pcs.	23 pcs.	10,000 pcs.	White (WH)	594-41101
TAG121LA4-1101-WH	20.0	8.0	315 pcs.	32 pcs.	10,000 pcs.	White (WH)	594-21101
TAG155LA4-1101-WH	25.4	8.5	231 pcs.	22 pcs.	5,000 pcs.	White (WH)	594-71101
TAG15LA4-1101-WH	25.4	12.7	154 pcs.	33 pcs.	5,000 pcs.	White (WH)	594-91101
TAG162LA4-1101-WH	38.1	12.7	110 pcs.	23 pcs.	2,500 pcs.	White (WH)	594-11010

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

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Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Asset identification label, thermal transfer

Helatag 1206

This multi-purpose white polyester label has the essential qualities to be useful in identifying your equipment. To customise your labels, we offer our thermal printing solution, our TT431 or TT4030 printers, along with our TagPrint Pro editing software. You can thus easily print professional quality alphanumeric texts, barcodes, QR codes, logos and images.

Helatag labels for permanent asset identification.

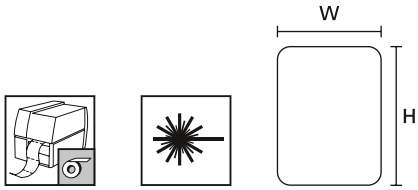
Features and Benefits

- Resistant to chemicals and abrasion
- Resistant to high temperatures
- Can be applied to smooth surfaces or critical surfaces (painted surfaces, plastics)
- Excellent durability over time

Applications

- Identification of biomedical equipment (artificial respirators, blood pressure monitors, oximeters, etc.)
- Ideal for the purposes of traceability, inventory and metrology
- Identification of sterilisable products

MATERIAL	Type 1206, Polyester (1206)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Thermal Transfer Printer	TT431, TT4030



HF ✓ RoHS ✓

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6-1206-WH	12.7	11.1	101.6	6 pcs.	15,000 pcs.	White gloss (GSWH)	596-12671
TAG13TD4-1206-WH	19.1	6.4	101.6	4 pcs.	10,000 pcs.	White gloss (GSWH)	596-12061
TAG61TD3-1206-WH	25.4	4.8	89.0	3 pcs.	10,000 pcs.	White gloss (GSWH)	596-12661
TAG01TD3-1206-WH	25.4	6.4	89.0	3 pcs.	7,500 pcs.	White gloss (GSWH)	596-01120
TAG34TD3-1206-WH	25.4	9.5	85.1	3 pcs.	7,500 pcs.	White gloss (GSWH)	596-12634
TAG15TD3-1206-WH	25.4	12.7	85.1	3 pcs.	7,500 pcs.	White gloss (GSWH)	596-12615
TAG31TD3-1206-WH	25.4	19.1	85.1	3 pcs.	5,000 pcs.	White gloss (GSWH)	596-12631
TAG35TD3-1206-WH	31.8	9.5	101.6	3 pcs.	7,500 pcs.	White gloss (GSWH)	596-12635
TAG17TD2-1206-WH	38.1	6.4	85.1	2 pcs.	5,000 pcs.	White gloss (GSWH)	596-12617
TAG27TD2-1206-WH	38.1	19.1	85.1	2 pcs.	2,500 pcs.	White gloss (GSWH)	596-12627
TAG77TD1-1206-WH	50.8	22.9	55.0	1 pc.	2,000 pcs.	White gloss (GSWH)	596-71206
TAG73TD1-1206-WH	50.8	25.4	55.0	1 pc.	2,000 pcs.	White gloss (GSWH)	596-12673
TAG63TD1-1206-WH	63.5	38.1	70.0	1 pc.	1,000 pcs.	White gloss (GSWH)	596-12663
TAG76TD1-1206-WH	63.5	50.8	70.0	1 pc.	500 pcs.	White gloss (GSWH)	596-61206
TAG4TD1-1206-WH	65.0	20.0	70.0	1 pc.	2,500 pcs.	White gloss (GSWH)	596-41206
TAG72TD1-1206-WH	69.9	31.8	76.0	1 pc.	1,000 pcs.	White gloss (GSWH)	596-12672
TAG62TD1-1206-WH	76.2	50.8	82.0	1 pc.	500 pcs.	White gloss (GSWH)	596-12662
TAG64TD1-1206-WH	88.9	36.5	95.0	1 pc.	1,000 pcs.	White gloss (GSWH)	596-12664

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

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Supplied on a continuous roll

Helatag 1213

These coloured vinyl labels on a continuous roll are particularly adapted to identifying large surface areas, such as shelving, or zones in storage space. To customise your labels, we offer our thermal printing solution, our TT431 or TT4030 printers, along with our TagPrint Pro editing software. You can thus easily print professional quality alphanumeric texts, barcodes, QR codes, logos and images.

Features and Benefits

- Resistant to water, alcohols, chemicals and abrasion
- Wide range of colours
- Delivered on a continuous roll, for manual adaptation to the length required, or with the aid of a printer equipped with a cutting block

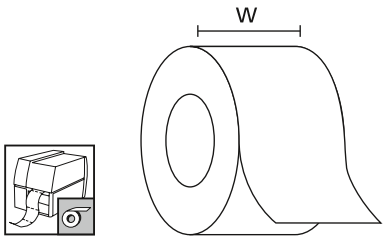
Applications

- Identification of hospital pneumatic systems
- Identification of shelving and storage space
- Identification of containers, boxes and cartons
- Delimitation of zones

Large and highly visible pipe marking.

MATERIAL	Type 1213, Vinyl, glossy colours (1213)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	+8 °C to +40 °C
Adhesive	Acrylic
Thickness of Foil	95 µm
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.

RoHS



TYPE	Width (W)	Pack Cont.	Colour	Article-No.
TAGR4TD1-1213-YE	25.0	50 m	Yellow gloss (GSYE)	596-03103
TAG108TD1-1213-BU	40.0	50 m	Blue (BU)	596-12181
TAG108TD1-1213-GN	40.0	50 m	Green (GN)	596-12166
TAG108TD1-1213-GY	40.0	50 m	Grey (GY)	596-12188
TAG108TD1-1213-PK	40.0	50 m	Pink (PK)	596-00971
TAG108TD1-1213-YE	40.0	50 m	Yellow gloss (GSYE)	596-12167
TAGR1TD-1213-GN	101.6	50 m	Green (GN)	596-12170
TAGR1TD-1213-RD	101.6	50 m	Red (RD)	596-12168
TAGR1TD-1213-WH	101.6	50 m	White gloss (GSWH)	596-12171
TAGR1TD-1213-YE	101.6	50 m	Yellow gloss (GSYE)	596-12169

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Panel plate labels, thermal transfer

Helatag 1220

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The white glossy colour is suited to industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

Features and Benefits

- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT

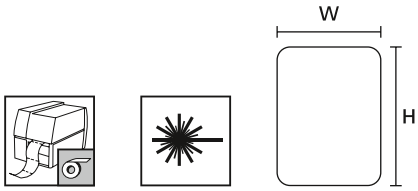
Applications

- Easy identification of assets and storage racks
- Individual labelling of boxes and equipment
- Highly durable material
- Ideal for the purposes of traceability, inventory and metrology

Panel labels Helatag 1220 – high performance adhesive ensures optimal adhesion to uneven surfaces.

MATERIAL	Type 1220, Polyester, white (1220)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents.
Recommended Ribbon Type	TT122OUT, TT822OUT
Thermal Transfer Printer	TT431, TT4030

RoHS



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG13-07TDK1-1220-WH	13.0	7.0	21.0	1 pc.	1,000 pcs.	White (WH)	596-00560
TAG22-22TDK1-1220-WH	22.0	22.0	28.0	1 pc.	1,000 pcs.	White (WH)	596-00561
TAG27-08TDK1-1220-WH	27.0	8.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00562
TAG27-12.5TDK1-1220-WH	27.0	12.5	33.0	1 pc.	1,000 pcs.	White (WH)	596-00558
TAG27-15TDK1-1220-WH	27.0	15.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00563
TAG27-18TDK1-1220-WH	27.0	18.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00564
TAG27-27TDK1-1220-WH	27.0	27.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00565
TAG35-18TDK1-1220-WH	35.0	18.0	41.0	1 pc.	1,000 pcs.	White (WH)	596-00566
TAG45-15TDK1-1220-WH	45.0	15.0	51.0	1 pc.	1,000 pcs.	White (WH)	596-00567
TAG45-25TDK1-1220-WH	45.0	25.0	51.0	1 pc.	1,000 pcs.	White (WH)	596-00568
TAG60-30TDK1-1220-WH	60.0	30.0	66.0	1 pc.	500 pcs.	White (WH)	596-00569
TAG90-45TDK1-1220-WH	90.0	45.0	96.0	1 pc.	500 pcs.	White (WH)	596-00570
TAG100-30TDK1-1220-WH	100.0	30.0	106.0	1 pc.	250 pcs.	White (WH)	596-00571
TAG100-70TDK1-1220-WH	100.0	70.0	106.0	1 pc.	250 pcs.	White (WH)	596-00572

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Panel plate labels, thermal transfer

Helatag 1221

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The silver colour is suited to industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

Features and Benefits

- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT

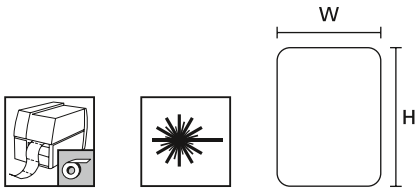
Applications

- Easy identification of assets and storage racks
- Individual labelling of boxes and equipment
- Highly durable material
- Ideal for the purposes of traceability, inventory and metrology

Panel labels are an ideal replacement for engraved plates.

MATERIAL	Type 1221, Polyester, silver (1221)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	50 µm
Chem. Material Properties	Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents.
Recommended Ribbon Type	TT122OUT, TT822OUT
Thermal Transfer Printer	TT431, TT4030

RoHS



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG13-07TDK1-1221-SR	13.0	7.0	21.0	1 pc.	1,000 pcs.	Silver (SR)	596-00573
TAG22-22TDK1-1221-SR	22.0	22.0	28.0	1 pc.	1,000 pcs.	Silver (SR)	596-00574
TAG27-08TDK1-1221-SR	27.0	8.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00575
TAG27-12.5TDK1-1221-SR	27.0	12.5	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00576
TAG27-15TDK1-1221-SR	27.0	15.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00577
TAG27-18TDK1-1221-SR	27.0	18.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00578
TAG27-27TDK1-1221-SR	27.0	27.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00579
TAG35-18TDK1-1221-SR	35.0	18.0	41.0	1 pc.	1,000 pcs.	Silver (SR)	596-00580
TAG45-15TDK1-1221-SR	45.0	15.0	51.0	1 pc.	1,000 pcs.	Silver (SR)	596-00581
TAG45-25TDK1-1221-SR	45.0	25.0	51.0	1 pc.	1,000 pcs.	Silver (SR)	596-00582
TAG60-30TDK1-1221-SR	60.0	30.0	66.0	1 pc.	500 pcs.	Silver (SR)	596-00583
TAG90-45TDK1-1221-SR	90.0	45.0	96.0	1 pc.	500 pcs.	Silver (SR)	596-00584
TAG100-30TDK1-1221-SR	100.0	30.0	106.0	1 pc.	250 pcs.	Silver (SR)	596-00585
TAG100-70TDK1-1221-SR	100.0	70.0	106.0	1 pc.	250 pcs.	Silver (SR)	596-00586

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Self-laminating labels, thermal transfer

Helatag 323, high temperature

This self-laminating label consists of a white printable area with a protective laminate ensure the printed text is shielded from negative environmental influences - such as humidity, dirt, debris and mechanical abrasion. It is ideally suited for wire and cable marking in both high temperature and outside environments, particular used in industry as well as military technology.

Easy marking of flexible, semi-rigid and rigid cables and wires.

Features and Benefits

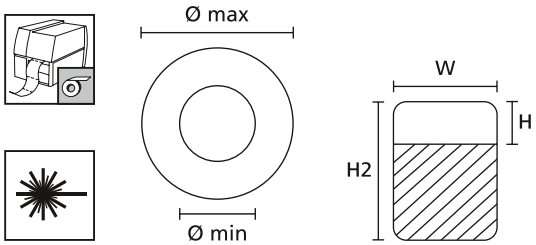
- High temperature self-laminating labels with an inscription field
- Extremely scratch and chemical resistant
- Protective laminating foil ensures optimal protection against humidity, dirt, debris, and mechanical abrasion
- Survives 5 years external weathering in central European climate

Applications

- Ideal for identification of vials and tubes
- Easy marking with QR/datamatrix code
- Code/identification securely protected by laminate
- Resistent to solvents and chemicals

MATERIAL	Type 323, Polyvinylidene Fluoride (323)
Operating Temperature	-40 °C to +140 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	25 µm
Chem. Material Properties	Excellent resistance against water, UV radiation, weather influence and solvents based on petroleum.
Recommended Ribbon Type	TT932DOUT
Thermal Transfer Printer	TT431, TT4030

RoHS



TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG51TD3-323-WHCL	1.4	3.0	25.4	8.8	19.1	85.0	3 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-51320
TAG26TD6-323-WHCL	1.5	3.0	12.7	9.5	19.1	85.0	6 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-26320
TAG36TD7-323-WHCL	2.0	4.7	12.7	9.0	23.8	95.0	7 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-36320
TAG2TD6-323-WHCL	3.5	7.6	12.7	12.7	36.5	82.0	6 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-02320
TAG22TD3-323-WHCL	3.5	7.6	25.4	12.7	36.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-22320
TAG24TD1-323-WHCL	3.5	7.6	50.8	12.7	36.5	55.0	1 pc.	1,000 pcs.	White (WH), Transparent (CL)	596-24320
TAG23TD5-323-WHCL	4.5	10.0	19.1	12.7	44.5	101.6	5 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-23320
TAG25TD3-323-WHCL	4.5	10.0	25.4	12.7	44.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-25320
TAG9TD3-323-WHCL	5.5	12.1	25.4	19.1	57.1	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-09320
TAG10TD2-323-WHCL	5.5	12.1	49.5	19.1	57.1	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-10320
TAG1TD2-323-WHCL	8.5	18.2	48.2	19.1	79.2	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-01320
TAG3TD3-323-WHCL	10.0	22.2	25.4	25.4	95.3	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-03320
TAG6TD1-323-WHCL	10.0	22.2	50.8	25.4	95.3	55.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-06320
TAG107TD3-323-WHCL	12.0	37.5	25.4	31.8	149.9	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-10732
TAG38TD3-323-WHCL	20.8	47.5	25.4	38.1	187.2	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-38320
TAG07TD1-323-WHCL	20.8	47.5	50.8	25.4	187.2	55.0	1 pc.	250 pcs.	White (WH), Transparent (CL)	596-07320

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

Labelling software

TagPrint Pro 4.0

TagPrint Pro 4.0 is the easy-to-use label/marker design and printing software in the HellermannTyton printing world. Compatible with Windows® 7, 8.1 and 10, TagPrint Pro 4.0 delivers an individualised, task-based experience that enables a user to easily develop print templates including bar codes, text and graphics to meet numerous applications. TagPrint Pro 4.0 streamlines labeling production by offering a user full control over the importing or entering of data, advanced security features, the option to group label designs under a single file name or job number, and the ability to batch print to either one or more printers at the same time.

Features and Benefits

- Powerful yet easy to use interface
- Built-in print automation capabilities -runs entire batches of labels and markers with one click
- Build your label or marker design from a template or from scratch
- Design Wizards easily guide a user through the addition of text, images, and barcodes to create a label
- Inverse, flip, and mirror image options for graphic images
- Open Excel files directly rather than copy and paste from Excel
- Multiple methods of scaling text in horizontal and vertical planes
- Save jobs in a queue and print all at one time with „Print later" function
- Connect or import directly from other databases including Excel, Access, text files
- Panel Label Wizard: Create dynamic endless strips with several text elements
- Double Sided Design: Create labels easily for double-sided printing

Applications

- Easy label setup for unique identification, including QR/datamatrix codes
- Printing from different file formats and databases

TYPE	Article-No.
TagPrintPro4.0-EMEA	556-00059

Subject to technical changes.

The easy to use software speeds up production of markers, labels and identification tags.

System Requirements	TagPrint Pro Standalone/TagPrint Pro Client PC running Microsoft Windows XP SP3, Vista SP1 or later, Windows 7, 8, 10 .NET Framework 4 512 MB RAM (XP SP3) 1.0 GB RAM (Vista/Windows 7, 8, 10) 500 MB available hard disk space.

Thermal transfer printer

TT431, Small to medium volume printing

The TT431 thermal transfer printer is perfect for printing on HellermannTyton materials such as self-adhesive labels, shrinkable tubing and identification tags. Thanks to its low weight and compact construction, the TT431 integrates seamlessly into any workstation. It is easy to use due to its intuitive colour LCD touch display and clear status messages which can be shown in multiple languages. The optional cutter and perforator make this printer ideal for a wide range of applications. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

Features and Benefits

- Small to medium volume single sided printing
- Print on HellermannTyton cable markers and labels
- Uses standard ribbons
- Barcodes: standard and 2D
- Print speed up to 150 mm/s
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 Bit Windows Vista,7, 8, 10, Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016, 2019

Applications

- Personalisation of labels for the purposes of metrology, referencing, traceability and security, etc.

TT431 thermal transfer printer designed for ease of operation.

Print Method	Thermal transfer
Print Head Type	300 dpi, flat type
Print Speed	up to 150 mm/s
Max. Print Width	105.70 mm
Label Height Max (metric)	4,000 mm
Interfaces	USB 2.0, Ethernet 10/100 Base T, RS232
Supported Barcodes, Printer	Standard and 2D
Printer Memory	256 MB RAM
Dimensions W x H x D	253 mm x 189 mm x 322 mm
Weight	4 kg

RoHS

TYPE	Pack Cont.	Article-No.
TT431	1 pc.	556-00400

All dimensions in mm. Subject to technical changes.

TYPE	Description	Article-No.
S430 Cutter	Cutter for TT430/TT431	556-00452
P430 Perforator	Perforator for TT430/TT431	556-00456
TT External Reel Holder	External Reel Holder	556-00451
TT430/TT431 300dpi Printhead	Printhead for TT430/TT431	556-00453
TT430/TT431 Print Roller	Print Roller for TT430/TT431	556-00454

Subject to technical changes.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Thermal transfer printer

TT4030, High volume printing

HellermannTyton's premium printer TT4030 is specifically designed for medium and heavy duty industrial applications. The 300 dpi print head fulfils all standard requirements for printing bar codes, warning signs, logos and written information. Optional premium quality accessories such as a perforator and cutter are designed to work seamlessly with the printer and will suit the most demanding needs.

Printing high definition graphics such as 2d barcodes, standard bar codes, numbers and text on adhesive labels, thermo plastics such as heat shrink and cable markers (Tiptags) is easily done.

A colour LCD Touchscreen with modern user interface helps intuitive operation.

Creation of professional looking industrial identification is simplified by the use of HellermannTyton´s label creation software TagPrint Pro 3.0.

Whether in stand-alone mode, as a PC application or in a network - the robust TT4030 printers can meet every requirement.

Features and Benefits

- High volume single sided printing
- Print on HellermannTyton heatshrink tubing, cable markers and labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 300 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, 8, 10

Applications

- Personalisation of labels for the purposes of metrology, referencing, traceability and security, etc.

TT4030 thermal transfer printer for high volumes.

Print Method	Thermal transfer
Print Head Type	300 dpi, flat type
Print Speed	up to 300mm/s
Max. Print Width	105.70 mm
Label Height Max (metric)	2,000 mm
Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard, 2D
Printer Memory	256 MB RAM
Dimensions W x H x D	252 mm x 288 mm x 460 mm
Weight	9.98 kg

HF ✓ RoHS ✓

TYPE	Article-No.
TT4030	556-04037

Subject to technical changes.

TYPE	Description	Article-No.
P4030 Perforator	Perforator for TT4030	556-04051
TT4030 Printhead	Printhead for TT4030	556-04041
S4030 Cutter	S4030 Cutter for TT4030	556-04050
TT External Reel Holder	External Reel Holder	556-00451
Printer Roller TT4030/TT4000+	Printer Roller for TT4030/TT4000+	556-04005

Subject to technical changes.

CE Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Our RFID solution

In order to improve the management of your equipment, HellermannTyton offers a range of HF / NFC and UHF RFID cable ties and tags. The stored information on the RFID tags and ties can be read by mobile or fixed RFID readers for automating asset status reporting and inventorising. Reading distances can vary from short distances of a few centimeters to very long ranges of a few meters depending on the frequency.

Radio Frequency Identification, for short RFID simply means the use of radio frequency waves to uniquely identify objects. RFID tags attached to items allow users to automatically and uniquely identify and track inventory and assets.

A new European Regulations on Medical Devices (MDR) concerning the traceability of these devices will be published in short term. The use of a Unique Identification Number (Unique Device Identification: UDI) for certain classes of medical devices will therefore take effect in 2021. Thanks to our RFID tags, ties and readers - and also in combination with datamatrix codes on our standard labels you can be assured of compliance with this new directive.

HellermannTyton works with local professional software partners who specialise in certain applications for different industries. These strong partnerships will help you with your traceability issues, inventory management or maintenance monitoring.

RFID technology will allow you to increase your efficiency, save time and limit human error - as each tagged item and asset is detected and identified automatically and matched up with the correct information in your database - using its unique ID or your own serial numbers.

Features and benefits:

- Unique identification with preprogrammed ID or your own serial numbers
- Wide variety of tags, ties readers in HF / NFC and UHF frequency
- Each tagged item and asset is detected and identified automatically and matched up with the correct information in your database
- Elimination of typing errors

Applications

- Traceability of contaminated waste in the elimination circuit
- Equipment traceability
- Inventory operations and inventory reports
- Management of documentation related to MD (medical devices)
- Helps with identification, collection, reporting, and analysis of any untoward occurrences associated with the use of medical devices

RFID

12. RFID reader scans in all directions: no line of sight necessary

1. Greater production efficiency: several functions at once: fastening, product labelling, product safety, product tracking and much more.

11. Labelling and identification of hard-to-reach parts: reliable alternative to barcode labels owing to insufficient space or unsuitable materials

2. Quick implementation using the HellermannTyton solution: for a seamless reading and writing process, HellermannTyton provides appropriate control devices for the RFID cable ties as part of its RFID system solution.

10. Robust and resistant to harsh environments and cleaning processes (hermetic embedding of the RFID chip and sealed into the cable tie in the glass tube)

3. Tool and inventory management: tools and stock can be easily and reliably located and organised.

9. Faster and more accuate data capture than paper based solution

4. Clear labelling despite dirt: stored digital information remains readable at all times, no matter how much dirt is encrusted on it.

8. Clear identification of objects with a unique ID

5. Reusability: information can be added to and read from RFID chips again and again.

7. Flexible non-contact data communication

6. Counterfeiting protection: if the cable tie is removed, it cannot be reused for the same purpose.

Automatic bundling up to Ø 20 mm

Autotool 2000 CPK

The Autotool 2000 CPK is an electrically operated and automated cable tying system. It has been developed to speed up bundling processes and to make the production more efficient. Besides the high speed bundling, this cable tying system is characterized by its simple operation and user-friendly ergonomics. The Autotool 2000 CPK offers a display for the settings and user information in 20 languages. One main feature of the Autotool 2000 CPK is the software „HT Data Management CPK".

This feature enables the easy parameterization of the tool for customers applications. The parameterization can easily be carried out via computer. Additionally the „HT Data Management CPK" offers an export function for the saved manufacturing data as well as further service functions. Therefore it ensures a consistent documentation for every binding process through the tool. The firmware of the AT2000 CPK tool enables various bundling and cutting functions. It is possible to define a loop diameter and to choose the length of an extended strap as an example. The function to cut with the tension released is of great value especially for applications with a very flexible bundling good (like silicone cables).

The Autotool 2000 CPK is ideally suited for handling high volume applications in wire harness facilities, automotive and industrial companies and in the packaging sector. With either the Bench mount kit CPK or the Overhead suspension CPK, the Autotool 2000 CPK is suitable for both stationary and flexible applications.

By using the optional Power pack CPK with control box the Autotool 2000 CPK can be integrated into fully automated production lines through a serial interface. Due to the removable handle less assembly space is needed.

Bandoleers of 50 cable ties as well as reels of 3,500 cable ties can be used.

Features and Benefits

- Electrically operated cable tying system
- Power supply through Power pack CPK - Input: 100-240 V a.c., 50/60 Hz; Output: 25.2 V d.c., max. 150 W
- Integration into fully automated production lines (Power pack CPK with control box necessary)
- Cycle time 0.8-1.2 sec. depending on quality and force
- Stationary and flexible use with devices possible
- HT Data Management CPK software (included) - for extensive data evaluation and monitoring of the tensioning process
- User-friendly menu in various languages included
- Process-reliable, constant and reproducable bundling and cutting up to Ø 20 mm
- Removable handle for space-saving integration

Application

- Manufacture of medical equipment (dental surgeries, etc.)

Autotool 2000 CPK.

HT Data Management CPK - software for Autotool 2000 CPK.

Power pack CPK for Autotool 2000 CPK.

TYPE	Description	Article-No.
Autotool 2000 CPK	Autotool 2000 CPK	106-00000
Power pack CPK	Power pack CPK	106-00100
Power pack CPK with control box	Power pack CPK with control box	106-00110

Subject to technical changes.

Power Supply	Electronically operated
Cycle Time	0.8-1.2 sec. depending on quality and force
Weight	1.8 kg
Tension Force	Adjustable

Automatic bundling up to Ø 20 mm

Cable ties for Autotool 2000 systems

The inside-serrated cable ties are designed for use specifically in the automatic cable tying systems. The Autotool 2000 CPK is ideally suited for handling high volumes applications in wire harness facilities, automotive and industrial companies as wells as the packaging sector.

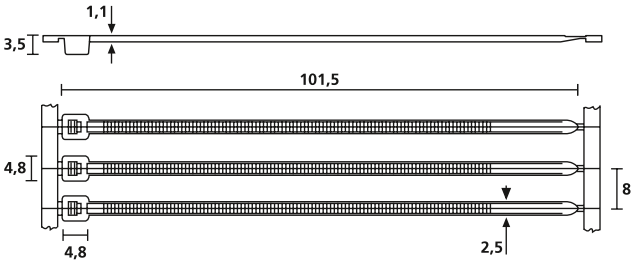
Features and Benefits

- Available in bandoleers of 50 cable ties or reels of 3,500 cable ties
- Repetitive tension on the bundles
- Easily recyclable

Cable ties for Autotool 2000 systems.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL 94 V2

HF ✓ RoHS ✓



Bandoleer T18RA

TYPE	Bundle Ø max.	N	Colour	Material	Pack Cont.	Article-No.
T18RA3500	20.0	80	Natural (NA)	PA66HS	3,500 pcs.	120-50009

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

N = **Minimum Loop Tensile Strength for Cable Ties (Newton)**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Waste-free bundling up to Ø 80 mm

Autotool System 3080

The Autotool System 3080 is an automated and electric cable tying system. It has been developed to speed up bundling processes and operates waste-free.

The advantage of three quick-changeable jaw sizes allows the Autotool System 3080 to adapt perfectly to different bundle diameters up to Ø 80 mm.

With either the Bench mount kit 3080 or the Overhead suspension 3080, the Autoool System 3080 is suitable for both stationary and flexible applications. The Autotool System 3080 can also be integrated into fully automated production lines.

Custom designed jaws are available to enable bundling of foot parts on production lines.

Features and Benefits

- Electrically operated cable tying system (Power pack 3080 necessary)
- Power pack 3080 - Input: 240/150 V a.c., 50/60 Hz; Output: 48 V d.c., max. 150 W
- High quality, waste-free bundling up to Ø 80 mm with flush cut off
- Jaws with diameters of 30, 50 and 80 mm - included in delivery
- Cycle time 1.1-2.4 seconds depending on bundle diameter
- Integration into Bench mount kit 3080 or Overhead suspension 3080 possible
- Integration into fully automated production lines possible
- Foot part bundling with custom jaw design Ø 50 mm

Autotool System 3080.

Autotool System 3080 with three different jaws - to optimize the cycle time for different bundle diameters.

TYPE	Description	Article-No.
ATS3080	Autotool System 3080	102-00000
Power pack 3080	Power pack 3080	102-00100

Subject to technical changes.

Power pack 3080.

Power Supply	Electrically operated
Cycle Time	1.1-2.4 sec. depending on bundle diameter
Weight	1.9 kg
Tension Force	Adjustable

Waste-free bundling up to Ø 80 mm

Cable ties for Autotool System 3080

The outside serrated strap is perfectly suitable for sensitive surfaces and can be used for bundling and fixing of cables, pipes and hoses, as well as for bag sealing.

The materials are particularly appropriate for high volume bundling applications in cable assembly, automotive, industrial and packaging applications.

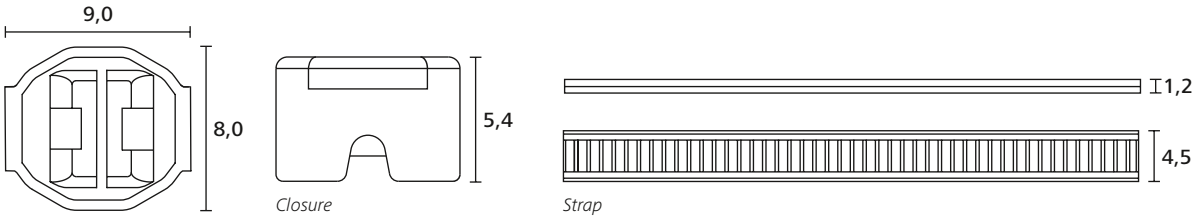
Features and Benefits

- Innovative two-piece consumables: closure and strap
- Outside serrated strap protects the bundle
- Available on reels of 500 m strap and 5,000 pcs. closures

Closures and strap for Autotool System 3080.

MATERIAL	Polyamide 6.6, high impact modified, heat and UV-stabilised (PA66HIRHSUV)	Polyamide 6.6, heat and UV-stabilised (PA66HSUV)
Operating Temperature	-40 °C to +95 °C, (+105 °C, 5000 h; +145 °C, 500 h)	-40 °C to +105 °C, (+145 °C, 500 h)
Flammability	UL 94 HB	UL 94 V2

RoHS ✓ RoHS ✓



TYPE	Description	Bundle Ø max.	N	Colour	Material	Pack Cont.	Article-No.
Closures Natural ATS3080	Closures Natural ATS3080	80.0	225	Natural (NA)	PA66HSUV	5,000 pcs.	102-66209
Strap Natural ATS3080	Strap Natural ATS3080	80.0	225	Natural (NA)	PA66HIRHSUV	500 m	102-66109

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

N = **Minimum Loop Tensile Strength for Cable Ties (Newton)**

Manual tensioning tool plastic housing

EVO7 up to 4.8 mm strap width

HellermannTyton's EVO7 mechanical hand tool was ergonomically designed to reduce the risks of repetitive stress injuries to operators while concurrently increasing productivity. The EVO7 Tension/Lock/Cut Technology delivers performance, safety and comfort for the operators. Available in a standard grip span (EVO7) or short grip span (EVO7SP), for smaller hands. Additional accessories are available.

The EVO7: Maximum performance with minimum effort.

Features and Benefits

- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Extended, slim nose for use in narrow spaces
- Housing made of resilient and lightweight glass fibre-reinforced polyester
- Standard grip span (90 mm) and short grip span (80 mm) available

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO7	EVO7	4.8	1.5	0.275 kg	110-70129

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Manual tensioning tool for KR-Series

KR6/8

Application tool KR6/8 crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very proof permanent connection.

The manual tensioning tool KR6/8 for KR-Series cable ties.

Features and Benefits

- Tough metal tool for applying KR cable ties only
- For tensioning, fixing and cutting KR cable ties
- Simply change the front plate to apply 6 mm or 8 mm straps

TYPE	Description	Strap Width max.	Weight	Article-No.
KR6/8	KR6/8	8.0	0.69 kg	121-00680

All dimensions in mm. Subject to technical changes.

Mask E-Guard

Comfort Strips for Masks

Ideal for use with disposable facemasks, Mask E-Guard is a comfort strip designed to relieve pressure and strain from the ears when wearing face masks. Masks can be worn without hooking the elastic behind the ears.

Features & Benefits

- Soft EVA material that does not snag hair or skin
- Easy to clean
- Reusable
- Delivered as roll of 12 or 250 pieces
- Use multiple pieces joined together for larger heads
- Customer branding available upon request

Re-useable Mask E-Guard.

MATERIAL	Ethylenevinylacetate (EVA)

TYPE	Material	Colour	Pack Cont.	Article-No.
Mask E-Guard	EVA	White (WH)	12	111-04000
	EVA	White (WH)	250	111-04001

All dimensions in mm. Subject to technical changes.

Multifunctional antimicrobial handle

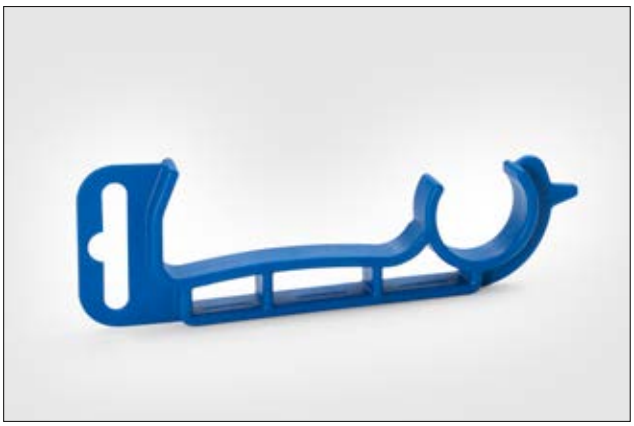
EasyDoor™ - Don't touch anything, EasyDoor™ does it for you

EasyDoor™ limits the risk of hand/object contact and the microbes outbreak and can be used by professionals or individuals for several applications (public establishments, companies, factories, warehouses, schools, hospitals, public transports, ...)

Features and Benefits

- Multifunctional - adaptation to all types of situation
- Antimicrobial additive - permanently prevents the proliferation of bacteria, fungi and H1N1 virus
- Washable (dishwasher, hydro alcoholic gel/spray, chemical disinfectant or wipes) - hygienic
- Reusable product and reuse of plastic scrap during manufacturing - No waste
- Ergonomic design - adapted to the shape of the hand, without muscular tiredness or tension
- Transport bracket - hanged up to the belt to avoid contact with other objects
- Low contact surface EasyDoor™/object - avoids transmision of microbes and contributes to the sanitary integrity of private and collective spaces
- Made with fiberglass - high mechanical resistance

EasyDoor™ - Touchless door opener.



EasyDoor™ - Multifunctional antimicrobial handle.

MATERIAL	Polypropylene, glass-fibre reinforced (PPGF20%)

TYPE	Pack Cont.	Article-No.
EasyDoor	10 pcs.	148-00162
	1,000 pcs.	148-00160

All dimensions in mm. Subject to technical changes.

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