



# Shipbuilding

Reliable cable management solutions

**MADE FOR REAL** 



MADE FOR REAL<sup>®</sup>

# Cable management for shipbuilders

## Tried and trusted parts for maritime applications

### **Experience you can trust**

HellermannTyton is a proven industrial brand and an experienced partner for cost-effective and reliable cable management solutions. Everywhere electricity flows or data passes, we provide quality products to install, fasten, connect, insulate, protect and identify cables and wires. Around the globe, our customers recommend our products because they meet the highest material and safety standards and are readily available near your shipyards. Tried and trusted? Aye, aye! Set sail with our parts and put them through their paces. We are sure that you won't be disappointed in our expertise.

### **Reliability you can purchase**

We understand from decades of experience working with shipbuilding customers just how important assembly time, part weight and durability are to the success of your projects. Rest assured, electrical accessories and tools from HellermannTyton are easy to work with. Our focus on practical design gives you the freedom to complete assembly and installation quickly and efficiently. Furthermore, our products are certified, reliable and contribute to keeping maintenance costs low.



## Service you can expect

Whether you are an electrical engineer in need of samples, or a process engineer on the lookout for opportunities to improve assembly or the weight of components on your vessels, HellermannTyton experts are always willing to collaborate and help you navigate cable management challenges in your maritime applications.





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## Selection guide - Which product for your application?



	TYPE	Defence	Cruise ship	Yachting	Certifications	Page
Cable Ties and Fixings	T-serie - PA66	X	X	X		10
	T-serie - PA66V0	X	X	X	EN 45545-2	12
	T-serie - PA11	X	X	X		13
	T-serie - PP	X	X	X	-	14
	LPH serie	X	X	X		15
	KR serie	X			EN 45545-2	16
	EL-TY serie	X			-	18
	REL serie	X	X	X		19
	SRT serie	X			-	20
	REZ serie	X	X	X	-	21
	SpeedyTie	X	X		-	22
	Textie serie	X	X		-	23
	MBT-Series SS316	X	X			24
	MBTXHD SS316 Double Wrap	X	X		-	26
	MBT-FC SS316 Coated	X	X		-	27
	MBT SS316 Double Wrap Coated	X	X		-	29
	LFPC serie	X	X		-	30
	2-piece, disk, round holes, deep hole anchor	X	X	X	-	31
	Paste mount_PMB3_PMB5	X		X	EN 45545-2	33
	FlexTack-mounts, high performance adhesive	X	X	X	-	34
MB-mounts, high performance adhesive	X	X	X	-	35	
TY-Mounts, adhesive	X	X	X	-	36	
CTM/KR-Mounts, screwable	X			EN 45545-2	37	
Aluminium P-Clips, screwable	X		X	-	38	
Insulation	TCN20		X	X		40
	TCN20 overexpanded		X	X		42
	HFT-A	X				43
	TF24	X	X	X		45
	TF31		X	X		46
	TF34		X	X	-	47
	TR27	X	X		EN 45545-2	48



# Selection guide - Which product for your application?



	TYPE	Defence	Cruise ship	Yachting	Certifications	Page
Insulation	TA37	x	x		EN 45545-2	49
	VITON-E	x			LEA  VG	50
	MA40	x	x		ASTM	51
	RMS	x	x		-	52
	HA40	x	x			53
	V9500	x			VG	56
Cable Protection Systems	HEGP		x	x	EN 45545-2 ECE R-118	57
	HEGPX	x	x		EN 45545-2	58
	HEGPTFR	x	x		EN 45545-2	59
	Twist-In-FR	x	x		EN 45545-2 ECE R-118	60
	Twist-In-RR	x	x	x	EN 45545-2	61
	HEGEMIP	x	x		-	62
	HEGEMIP-VG	x			VG	63
	HEGMIP-HY	x	x		-	64
	Flexiform G51N PE	x	x		-	65
	Flexiform G51N PA6	x	x		NASM	66
Electrical Installation	Htape Flex 15	x	x	x		67
	Power 600 Natural Rubber	x	x	x		69
	Power 650 Butyl Rubber	x	x	x	-	70
	Power 660 Rubber Mastic	x	x	x	-	71
	Power 670 Vinyl Mastic	x	x	x	-	72
	Power 715 EPR	x	x	x	-	73
	Power 800 Silicone	x	x	x	-	74
	Power 810	x	x	x	-	75
	Power 820	x	x	x	-	76
	Htape Tex	x	x	x	-	77
	PUR 33	x	x	x	-	78
	PUR 771	x	x	x	-	79
	Gel KH67	x	x	x	-	80
	Relifix 410	x	x	x		81
Relifix V	x	x	x		82	
Relifix VY	x	x	x	-	83	
Religel Plus	x	x	x		84	

## Selection guide - Which product for your application?



	TYPE	Defence	Cruise ship	Yachting	Certifications	Page
Identification Systems	KH100	X	X	X	-	85
	Pressgel	X	X	X	-	86
	TULT	X				87
	TLFX	X			EN 45545-2	88
	TULT-DS	X				89
	TLFX-DS	X			EN 45545-2	90
	TIPTAG	X			EN 45545-2	91
	TAGPU	X				92
	TAG 896	X	X	X	-	94
	TAG 323	X			-	96
	TAG 1104	X				98
	TAG 1220	X			-	99
	TAG 1221	X			-	100
	TAG 1204	X				101
	TAG 1206	X				102
	TAG 323	X			-	103
	RFID MBT Coated	X	X		-	104
	M-BOSS Compact Printer / Organiser	X	X			105
	M-BOSS Compact Marker	X	X		-	106
	SSC	X			-	107
	SSM	X			-	107
	TT431	X	X	X		108
	TT4030	X	X	X		109
	TP PRO 4.0	X	X	X	-	110
	TT Printer Ribbons Adhesive	X	X	X	-	111
	TT Printer Ribbons Heat Shrink	X	X	X	-	112
	TTRC+ 30MM, 556-00114	X			-	112
	TTRC+ 60MM, 556-00115	X			-	112
TTRC+ 100MM, 556-00103	X			-	112	
Application Tooling	EVO7i	X	X	X	-	113
	EVO9 / SP / HT	X	X	X	-	114
	KR6/8 / EVO KR	X			-	115
	MK9SST	X	X	X	-	116
	CHG900	X	X	X	-	117



# Cable Ties and Fixings

Material information

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
<b>Aluminium alloy</b>	AL	-40 °C to +180 °C	Natural (NA)		<ul style="list-style-type: none"> <li>Corrosion resistant</li> <li>Antimagnetic</li> </ul>	<b>RoHS</b>
<b>Chloroprene Rubber</b>	CR	-20 °C to +80 °C	Black (BK)		<ul style="list-style-type: none"> <li>Weather resistant</li> <li>High yield strength</li> </ul>	<b>RoHS</b>
<b>Ethylene Tetrafluoroethylene (Tefzel®)</b>	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0	<ul style="list-style-type: none"> <li>Resistance to radioactivity</li> <li>UV resistant, not moisture sensitive</li> <li>Good chemical resistance to acids, bases, oxidizing agents</li> </ul>	<b>RoHS</b>
<b>Polyacetal</b>	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Flexible at low temperature</li> <li>Not moisture sensitive</li> <li>Robust on impact</li> </ul>	<b>RoHS</b>
<b>Polyamide 11</b>	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Bio-plastic, derived from vegetable oil</li> <li>Strong impact resistance at low temperature</li> <li>Very low moisture absorption</li> <li>Weather resistant</li> <li>Good chemical resistance</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 12</b>	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good chemical resistance to acids, bases, oxidizing agents</li> <li>UV resistant</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 4.6</b>	PA46	-40 °C to +130 °C, (+150 °C, 5000 h; +195 °C, 500 h)	Natural (NA), Grey (GY)	UL 94 V2	<ul style="list-style-type: none"> <li>Resistance to high temperatures</li> <li>Very moisture sensitive</li> <li>Low smoke sensitivity</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyamide 6</b>	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> </ul>	<b>RoHS</b>
<b>Polyamide 6, high impact modified</b>	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	<b>RoHS</b>
<b>Polyamide 6.6</b>	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6, glass-fibre reinforced</b>	PA66GF13	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good resistance to lubricants, fuels, salt water and solvents</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6, heat and UV-stabilised</b>	PA66HSUV	-40 °C to +105 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Modified elevated maximum temperature</li> <li>UV resistant</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6, heat stabilised</b>	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Modified elevated maximum temperature</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6, high impact modified</b>	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	<b>RoHS</b>
<b>Polyamide 6.6, high impact modified, heat and UV-stabilised</b>	PA66HIRHSUV	-40 °C to +110 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated maximum temperature</li> <li>High yield strength, UV resistant</li> </ul>	<b>RoHS</b>
<b>Polyamide 6.6, high impact modified, heat stabilised</b>	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated maximum temperature</li> </ul>	<b>RoHS</b>
<b>Polyamide 6.6, high impact modified, scan black</b>	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	<b>RoHS</b>
<b>Polyamide 6.6, UV-resistant</b>	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>UV resistant</li> </ul>	<b>HF</b> <b>RoHS</b>





MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
<b>Polyamide 6.6,</b> with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6,</b> with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame-retardant	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6 V0</b>	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Low smoke emission</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyester</b>	SP	-50 °C to +150 °C	Black (BK)		<ul style="list-style-type: none"> <li>UV resistant</li> <li>Good chemical resistance to most acids, bases and oils</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyetheretherketone</b>	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0	<ul style="list-style-type: none"> <li>Resistance to radioactivity</li> <li>Not moisture sensitive</li> <li>Good chemical resistance to acids, bases, oxidising agents</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyethylene</b>	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	<ul style="list-style-type: none"> <li>Low moisture absorption</li> <li>Good chemical resistance to most acids, bases, alcohol, oils</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyolefin</b>	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0	<ul style="list-style-type: none"> <li>Low smoke emissions</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polypropylene</b>	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> <li>Floats in water</li> <li>Moderate yield strength</li> <li>Good chemical resistance to acids, bases and solvents</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polypropylene, Ethylene Propylene Diene Terpolymer</b> rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good resistance to high temperature</li> <li>Good chemical and abrasion resistance</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polypropylene</b> with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	<ul style="list-style-type: none"> <li>Metal and X-Ray detectable</li> <li>Heat resistant</li> <li>Moderate yield strength</li> <li>Good chemical resistance</li> </ul>	<b>RoHS</b>
<b>Polypropylene</b> with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame-retardant	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyvinylchloride</b>	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	<ul style="list-style-type: none"> <li>Low moisture absorption</li> <li>Good chemical resistance to acids, bases, salts, alcohol, oils</li> </ul>	<b>RoHS</b>
<b>Stainless Steel, Stainless Steel</b>	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	<ul style="list-style-type: none"> <li>Corrosion resistant</li> <li>Antimagnetic</li> <li>Weather resistant</li> <li>Chemical resistance</li> <li>SS316 also resistant against seawater, salt spray and anorganic acids</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Thermoplastic Polyurethane</b>	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>High elasticity</li> <li>Good chemical resistance to acids, bases and oxidising agents</li> </ul>	<b>HF</b> <b>RoHS</b>

Tefzel® is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. In addition to Tefzel® from DuPont HellermannTyton also uses equivalent E/TFE raw material from other suppliers.

\*\*Further colours available on request.

\*These details are only guide values. They should not be regarded as an exhaustive material specification and are no substitute for suitability tests. Please see our datasheets for further details.

= Minimum Loop Tensile Strength for Cable Ties (newton)

**HF = Halogen Free**

**LFH = Limited Fire Hazard**

**RoHS = Restriction of Hazardous Substances**



# Cable Ties and Fixings

Cable ties, inside serrated

## Cable ties polyamide 6.6 standard

### T-Series in PA66 natural and black

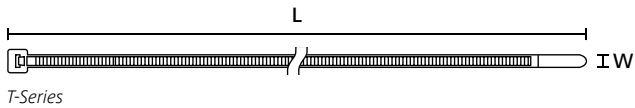
T-Series cable ties for bundling and securing of cables, pipes and hoses. These cable ties can be used for nearly all kind of applications.

#### Features and benefits

- Available in a wide range of materials and sizes
- High tensile strength with very low insertion force
- Only high quality plastic is used meeting recycling targets
- Inside serrated cable ties for a strong hold onto bundles
- Ergonomic bent tail offers quick and simple installation
- Easy application either manually or with an application tool



Standard T-Series cable ties – for almost any type of application.



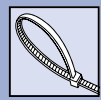
Material specification please see page 8.

TYPE	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Pack Cont.	Tools	Article-No.
T18S	2.3	83.0	16.0	80	PA66	Natural (NA)	1,000 pcs.	1-2;4-6;25	111-02809
T18R	2.5	100.0	22.0	80	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-01910
	2.5	100.0	22.0	80	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-01919
T18I	2.5	145.0	35.0	80	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-02319
	2.5	145.0	35.0	80	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-02370
T18L	2.5	205.0	50.0	80	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-02119
	2.5	205.0	50.0	80	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-02110
T25L	2.8	240.0	65.0	110	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-02500
	2.8	240.0	65.0	110	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-02519
T25LL	2.8	330.0	95.0	110	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-02619
T30R	3.5	150.0	35.0	135	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-03011
	3.5	150.0	35.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-03009
T30L	3.5	198.0	50.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-03419
	3.5	198.0	50.0	135	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-03410
T30LL	3.5	290.0	80.0	135	PA66	Black (BK)	100 pcs.	1-2;4-6;25	111-03500
	3.5	290.0	80.0	135	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-03529
T40R	4.0	175.0	40.0	180	PA66	Natural (NA)	100 pcs.	1-2;4-6;25	111-01626
T50S	4.6	150.0	35.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05810
	4.6	150.0	35.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05819
T50R	4.6	200.0	50.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05000
	4.6	200.0	50.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05013
T50M	4.6	245.0	65.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-06201
	4.6	245.0	65.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-06200
T50I	4.6	300.0	85.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05210
	4.6	300.0	85.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05219
T50L	4.6	390.0	110.0	225	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05400
	4.6	390.0	110.0	225	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05409
T50LL	4.6	445.0	130.0	225	PA66	Black (BK)	500 pcs.	1-2;4-7;25	111-06002

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 ties polyamide 6.6 standard

### T-Series in PA66 natural and black

TYPE	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Pack Cont.	Tools	Article-No.
T80R	4.7	205.0	55.0	355	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05019
	4.7	205.0	55.0	355	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-08010
T80I	4.7	305.0	85.0	355	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-08229
	4.7	305.0	85.0	355	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-08210
T80L	4.7	390.0	110.0	355	PA66	Black (BK)	100 pcs.	1-2;4-7;25	111-05410
	4.7	390.0	110.0	355	PA66	Natural (NA)	100 pcs.	1-2;4-7;25	111-05419
T120S	7.6	225.0	55.0	535	PA66	Natural (NA)	50 pcs.	1;3;7;9-10;25	111-12829
T120I	7.6	300.0	80.0	535	PA66	Black (BK)	100 pcs.	1;3;7;9-10;25	111-12210
	7.6	300.0	80.0	535	PA66	Natural (NA)	100 pcs.	1;3;7;9-10;25	111-12219
	7.6	301.6	80.0	535	PA66	Black (BK)	80 pcs.	1;3;7;9-10;25	111-01669
T150R	7.6	365.0	100.0	670	PA66	Black (BK)	100 pcs.	1;3;7;9-10;25	111-14810
	7.6	365.0	100.0	670	PA66	Natural (NA)	100 pcs.	1;3;7;9-10;25	111-14819
T120R(E)	7.6	387.0	100.0	535	PA66	Black (BK)	100 pcs.	1;3;7;9-10;25	111-12010
	7.6	387.0	100.0	535	PA66	Black (BK)	100 pcs.	1;3;7;9-10;25	111-12100
	7.6	387.0	100.0	535	PA66	Natural (NA)	100 pcs.	1;3;7;9-10;25	111-12019
T120M	7.6	460.0	125.0	535	PA66	Black (BK)	100 pcs.	1;3;7;9-10;25	111-12610
	7.6	460.0	125.0	535	PA66	Natural (NA)	100 pcs.	1;3;7;9-10;25	111-12619
T120XM	7.6	600.0	175.0	535	PA66	Black (BK)	50 pcs.	1;3;7;9-10;25	111-12701
	7.6	600.0	175.0	535	PA66	Natural (NA)	50 pcs.	1;3;7;9-10;25	111-12704
T120L	7.6	760.0	225.0	535	PA66	Black (BK)	50 pcs.	1;3;7;9-10;25	111-12403
	7.6	760.0	225.0	535	PA66	Natural (NA)	50 pcs.	1;3;7;9-10;25	111-12429
T150M	8.9	530.0	150.0	780	PA66	Natural (NA)	25 pcs.	1;7;9-10	111-15619
T150L	8.9	820.0	245.0	780	PA66	Black (BK)	25 pcs.	3	111-15405
	8.9	820.0	245.0	780	PA66	Natural (NA)	25 pcs.	1;7;9-10	111-15419
T150XL	8.9	1,095.0	330.0	780	PA66	Black (BK)	25 pcs.	1;7;9-10	111-15500
	8.9	1,095.0	330.0	780	PA66	Natural (NA)	25 pcs.	1;7;9-10	111-15519
T150XLL	8.9	1,325.0	405.0	780	PA66	Black (BK)	25 pcs.	1;7;9-10	111-15300
	8.9	1,325.0	405.0	780	PA66	Natural (NA)	25 pcs.	1;7;9-10	111-15304
T250R	12.4	515.0	125.0	1,115	PA66	Natural (NA)	25 pcs.	7;9-10	111-24803
T250M	12.4	565.3	150.0	1,115	PA66	Black (BK)	25 pcs.	7;9-10	111-25001
	12.4	565.3	150.0	1,115	PA66	Natural (NA)	25 pcs.	7;9-10	111-25002
T250I	12.4	730.0	203.0	1,115	PA66	Natural (NA)	25 pcs.	7;9-10	111-25219
T250L	12.4	880.0	254.0	1,115	PA66	Black (BK)	25 pcs.	7;9-10	111-24601
T250XL	12.4	1,030.0	305.0	1,115	PA66	Black (BK)	25 pcs.	7;9-10	111-25200
	12.4	1,030.0	305.0	1,115	PA66	Natural (NA)	25 pcs.	7;9-10	111-00466
T250X	12.5	370.0	100.0	1,115	PA66	Black (BK)	100 pcs.	7;9-10	111-25102

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

Recommended Tools								
1	2	3	4	5	6	9	10	25
MK10-SB	MK20	MK21	MK3PNSP2	EVO7i	MK7P	EVO9HT	MK9P	EVOcut



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



# Cable Ties and Fixings

Cable ties, inside serrated

## Cable ties for higher fire-protection

### T-Series in PA66V0 white

T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application especially where safety regulations are high and the reduction of smoke and dangerous gases is required. PA66V0 products are most critically used within public sector areas – particularly in the rail, construction and defence industry.

#### Features and benefits

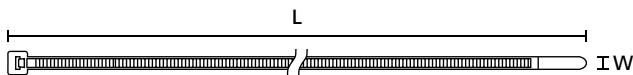
- White cable tie for higher fire-protection
- Conform to low smoke generation requirements (UL94 V0)
- Low evolution of toxic gases and corrosive acids in event of a fire
- PA66V0 cable ties are available in different sizes
- High safety rating due to low fire hazard



Flame retardant cable tie made from PA66V0 material.



**Material specification please see page 8.**



T-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66V0	White (WH)	100 pcs.	1-2;4-6;25	111-91819
T18L	2.5	203.2	55.0	80	PA66V0	White (WH)	1,000 pcs.	1-2;4-6;25	111-02043
	2.5	205.0	55.0	80	PA66V0	White (WH)	100 pcs.	1-2;4-6;25	111-01557
T30R	3.6	150.0	35.0	135	PA66V0	White (WH)	100 pcs.	1-2;4-6;25	111-93019
T50R	4.6	200.0	50.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-6;25	111-95019
T50I	4.6	300.0	85.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-6;25	111-00317
T50L	4.7	390.0	110.0	225	PA66V0	White (WH)	100 pcs.	1-2;4-6;25	111-05438
T120R(E)	7.6	387.0	100.0	535	PA66V0	White (WH)	100 pcs.	1;3;9-10;25	111-91210

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

Recommended Tools								
1	2	3	4	5	6	9	10	25
MK10-SB	MK20	MK21	MK3PNSP2	EVO7i	MK7P	EVO9HT	MK9P	EVOcut

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

EN 45545-2



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## Cable ties made from sustainable bioplastic

### T-Series in PA11 black

T-Series cable ties manufactured from PA11 have many technical features making them suitable for use in a variety of applications to fix and support cables, pipes and other elements. They offer an excellent resistance to chemicals in most challenging environments like offshore or on oil rigs and construction vehicles. In addition the very good UV resistance makes it a perfect choice for solar panel cable installations.

#### Features and benefits

- Made of Polyamide 11 – a sustainable bioplastic from vegetable oil
- Very good UV resistance and durability in outdoor applications
- Stable technical performance even at very low temperatures
- High resistance to chemicals including chlorides
- Low water absorption rate offers consistent technical performance



A sustainable T-Series cable tie with high resistance to chemicals and UV light.



T-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA11	Black (BK)	100 pcs.	1-2;4-6;25	111-01718
T30R	3.5	150.0	35.0	130	PA11	Black (BK)	100 pcs.	1-2;4-6;25	111-01719
T50S	4.6	150.0	35.0	170	PA11	Black (BK)	100 pcs.	1-2;4-6;25	111-01720
T50R	4.6	200.0	50.0	170	PA11	Black (BK)	100 pcs.	1-2;4-6;25	111-01721
T50M	4.6	245.0	65.0	225	PA11	Black (BK)	100 pcs.	1-2;4-6;25	111-02218
T50I	4.6	300.0	85.0	225	PA11	Black (BK)	100 pcs.	1-2;4-6;25	111-02217

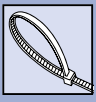
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Recommended Tools					
1	2	4	5	6	25
MK10-SB	MK20	MK3PNSP2	EVO7i	MK7P	EVOcut

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



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



# Cable Ties and Fixings

Cable ties, inside serrated

## Polypropylene cable ties for higher chemical resistance and temperatures up to +115 °C

### T-Series in PP natural and black

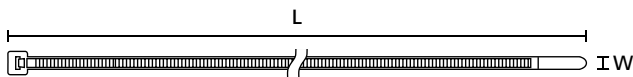
T-Series cable ties made from Polypropylene (PP) are less hydroscopic and offer a higher chemical resistance and temperature range compared to a standard Polyamide 6.6 (PA66) material. Cable ties from Polypropylene can withstand continuous operating temperatures up to +115 °C. These cable ties are used to bundle and secure cables, pipes and/or hoses.

### Features and benefits

- Polypropylene cable ties for higher chemical resistance
- Can withstand continuous operating temperatures up to +115 °C
- Different sizes available in black and natural colour
- Due to its low density PP cable ties can float on water
- Less hydroscopic material, almost no water absorption



T-Series cable ties for higher chemical resistance and temperatures up to +115 °C (PP).



T-Series



Material specification please see page 8.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	19.0	36	PP	Black (BK)	100 pcs.	1-2;4-6;25	111-01917
	2.5	100.0	19.0	36	PP	Natural (NA)	1,000 pcs.	1-2;4-6;25	111-01922

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

Recommended Tools					
1	2	4	5	6	25
MK10-SB	MK20	MK3PNSP2	EVO7i	MK7P	EVOcut

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



## Cable ties with low profile head

### LPH-Series


LPH cable ties are made of Polyamide 6.6 materials. The design with its serration on the outside provides a smooth surface to the bundle. Any damage to the insulation can be avoided. The flat head is ideal in areas with restricted space. They are mainly used within the electrical industry but the tough design is perfectly suited to a variety of indoor and outdoor applications.

#### Features and benefits

- High impact modified cable ties are also available
- Good tensile strength with a single – or a double bridged head
- Outside serration allows for a smooth surface to the bundle
- Design protects against damage to cable insulation
- Low profile head for optimised use especially in restricted spaces
- Strap is threaded parallel through the low profile head



LPH-Series with a smooth surface to the bundle.

TYPE	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Pack Cont.	Tools	Article-No.
LPH175	9.0	175.0	40.0	310	PA66	Black (BK)	100 pcs.	1;9-10	112-00203
LPH275	9.0	265.0	62.0	480	PA66HIR(S)	Black (BK)	100 pcs.	1;9-10	112-00303
LPH350	9.0	355.0	92.0	480	PA66HIR(S)	Black (BK)	100 pcs.	1;9-10	112-00403
LPH500	9.0	505.0	140.0	540	PA66HIR(S)	Black (BK)	100 pcs.	1;9-10	112-00033
LPH750	9.0	752.0	220.0	540	PA66HIR(S)	Black (BK)	100 pcs.	1;9-10	112-00034

All dimensions in mm. Subject to technical changes.

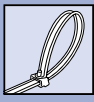
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Recommended Tools		
1	9	10
MK10-SB	EVO9HT	MK9P

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



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# Cable Ties and Fixings

## Cable ties without serration

### Cable tie locked by glass fibre pin

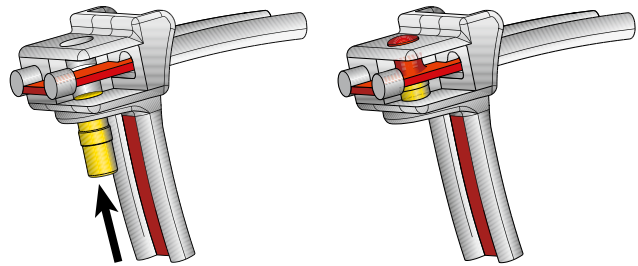
This cable tie is distinguished by its smooth strap and unique locking mechanism. The chamfered head of the KR-Series allows for a firm fit around the bundled element. Due to its special design KR-Series cable ties can be used as a safety method to bundle any cable and to also secure bellows on steering racks, water hoses or vacuum lines. The endless strap version is fairly flexible and can be cut to any length required. Separate heads are available to fix the strap.

#### Features and benefits

- Cable tie without serration to avoid any damage to cables
- Strap is locked into place with a glass-fibre reinforced pin
- Very secure and vibration resistant fixing
- Available in various materials, colours and almost every length
- Cable ties from PA12 are highly resistant to chemicals, impact and UV light
- KR-ties up to 426 mm are made as one piece
- For assembly a special KR-tool is needed



KR-Series ties applied on a cable tray.



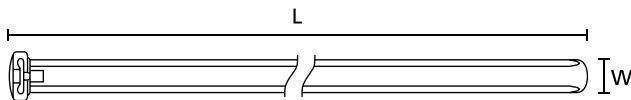
The unlocked head (yellow) of a KR-tie.

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



**Material specification please see page 8.**

#### KR-Series, 1-Piece



Cable tie KR-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR6/35	6.1	360.0	93.0	490	PA66	Natural (NA)	50 pcs.	11	121-63519
	6.1	360.0	93.0	490	PA66HS	Natural (NA)	50 pcs.	11	121-63555
	6.1	360.0	93.0	490	PA66UV	Black (BK)	50 pcs.	11	121-63560
KR8/21	8.0	210.0	47.0	785	PA66HS	Natural (NA)	50 pcs.	11;13	121-82155
	8.0	210.0	47.0	785	PA66	Natural (NA)	50 pcs.	11;13	121-82119
	8.0	210.0	47.0	785	PA66UV	Black (BK)	50 pcs.	11;13	121-82160
KR8/33	8.0	337.0	86.0	390	PA12	Black (BK)	50 pcs.	11;13	121-83380
	8.0	337.0	86.0	785	PA66	Natural (NA)	50 pcs.	11;13	121-83319
	8.0	337.0	86.0	785	PA46	Grey (GY)	50 pcs.	11;13	121-83378
	8.0	337.0	86.0	785	PA66HS	Natural (NA)	50 pcs.	11;13	121-83355
	8.0	337.0	86.0	785	PA66UV	Black (BK)	50 pcs.	11;13	121-83360
KR8/43	8.0	426.0	105.0	785	PA66HS	Black (BK)	50 pcs.	11;13	121-74360
	8.0	426.0	105.0	785	PA66HS	Natural (NA)	50 pcs.	11;13	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.

#### Recommended Tools

11	13
KR6/8	KR8PNSE

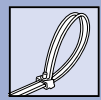
For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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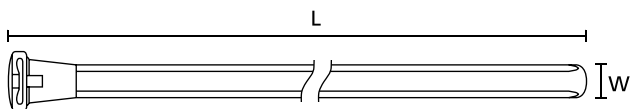


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### KR-Series, ultrasonic welded



Cable tie KR-Series, ultrasonic welded

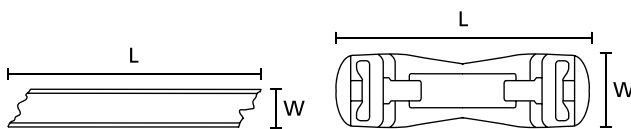


Cable Ties KR-Series.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR8/50	8.0	500.0	152.0	785	PA66	Natural (NA)	50 pcs.	11;13	121-05019
KR8/60	8.0	600.0	184.0	785	PA66	Natural (NA)	50 pcs.	11;13	121-06019
KR8/80	8.0	800.0	248.0	785	PA66	Natural (NA)	50 pcs.	11;13	121-08019
KR8/100	8.0	1,000.0	300.0	785	PA66W	Black (BK)	50 pcs.	11;13	121-10060

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

### KR-Series, endless



Cable tie KR8S1

Double-head KR8C5



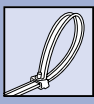
KR-Series cable ties can be cut to any desired length and then be locked with separate cable tie heads.

TYPE	Width (W)	Length (L)	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR8/S1	8.0	50.0 m	785	PA66HS	Natural (NA)	50.0 m	11;13	121-98151
	8.0	50.0 m	785	PA66W	Black (BK)	50.0 m	11;13	121-98160
KR8/C5	11.7	38.0	-	PA66HS	Natural (NA)	200 pcs.	11;13	121-58551
	11.7	38.0	-	PA66W	Black (BK)	200 pcs.	11;13	121-58560

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

Recommended Tools	
11 KR6/8	13 KR8PNSE

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



# Cable Ties and Fixings

Cable ties without serration

## Endless cable ties with separate head and spacer

### EL-TY-Series


These robust cable ties are particularly suitable for use with larger diameter cables, pipes and hoses. Designed originally for securing overhead catenary and cables, they are now used in many industries from the building sector, through to the chemical industry, to the installation of signs for traffic management. Separate spacers allow for a defined distance when bundling in parallel.

### Features and benefits

- Made of very strong Polyacetal (POM)
- System consists of endless strap, spacers and heads
- Head includes stainless steel pawls for a proper fixation
- Very secure fixing and good resistance to ageing and UV light
- Suits any bundle diameter and reduces inventory

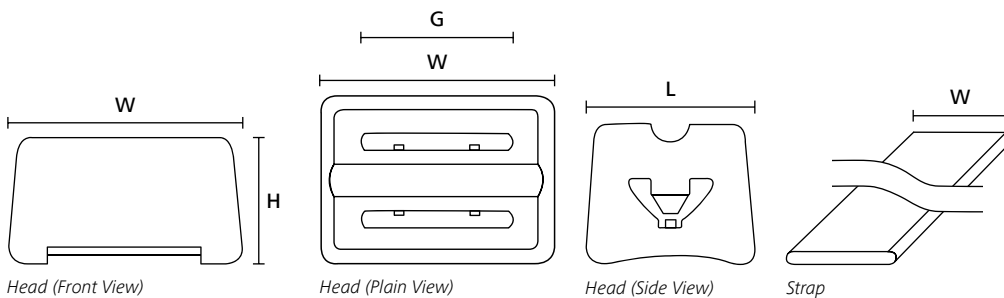
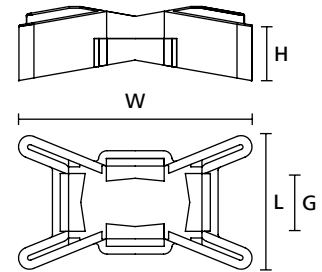



EL-TY straps can be cut to suit any bundle with application tool EVO9.

 **Material specification please see page 8.**



Spacer.



TYPE	Width (W)	Length (L)	Height (H)		Strap Width max. (G)	Material	Colour	Content	Tools	Article-No.
EL-TY (TELS1)	12.7	15.2 m	-	1,115	-	POM	Black (BK)	15m Strap, 30 Heads	9	111-30000
EL-TY (TELSH)	20.3	15.8	12.4	1,115	12.7	POM	Black (BK)	25 Heads	-	111-31000
EL-TY (TELS-SPK2)	53.3	30.5	17.0	1,115	12.7	PP	Black (BK)	50 Spacer	-	111-32000

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

Recommended Tools
9 EVO9HT

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



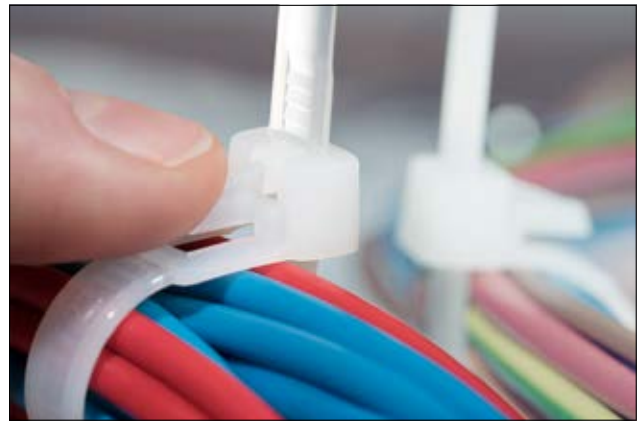
## Cable ties inside serrated with kickdown lever

### REL-Series

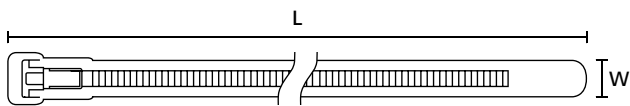
The REL-Series is ideally used in applications where changes are anticipated and a tie needs to be opened and closed repeatedly. The release mechanism of an REL cable tie allows simple and quick opening with only one hand. UV resistant cable ties manufactured from PA66W are recommended for outdoor applications.

#### Features and benefits

- Releasable and reusable cable tie for medium-weight loads
- Extremely easy-to-operate release mechanism
- Opens simply and quickly with only one hand
- Also available in PA66W for outdoor applications
- REL cable ties have their serration on the inside



Releasable and reusable cable tie, REL-Series.



REL-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
REL180	6.5	180.0	46.0	150	PA66	Black (BK)	100 pcs.	115-00027
REL100	6.7	100.0	21.0	180	PA66	Black (BK)	100 pcs.	131-21010
	6.7	100.0	21.0	180	PA66	Natural (NA)	100 pcs.	131-21019
REL140	7.6	150.0	35.0	200	PA66	Black (BK)	100 pcs.	131-21410
	7.6	150.0	35.0	200	PA66	Natural (NA)	100 pcs.	131-21419
REL250	7.6	250.0	68.0	200	PA66	Black (BK)	100 pcs.	131-22510
	7.6	250.0	68.0	200	PA66	Natural (NA)	100 pcs.	131-22519
	7.6	250.0	68.0	200	PA66W	Black (BK)	100 pcs.	131-22560

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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# Cable Ties and Fixings

Cable ties, releasable

## Cable ties without serration in flexible TPU

### SRT-Series for industry quantities

The soft, flexible material makes these ties particularly suitable for use on sensitive wires, for instance fibre-optic cables. Additionally they are suitable for moving elements and vibrating applications. The double slotted head allows for parallel bundling.

#### Features and benefits

- Elastic and flexible cable ties with rounded and smooth edges
- Releasable and reusable
- Double slotted head with fixation pawl
- Flexibility ensures steady and evenly distributed pressure
- Tight fixation even in vertical position: prevent sliding down or loosening bundle
- Suitable for moving elements and vibrating applications like windmills, machines, robotics, pulsating tubing and conduits
- Ideal use for temporarily fixation for presentations, concerts, theatres, exhibitions
- Long lifetime when used indoor
- Remains flexible even at cold temperatures (-20 °C)



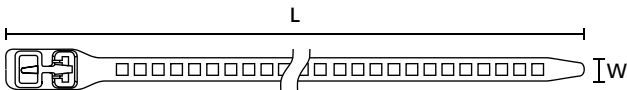
The elasticity of the SOFTIX ties makes them suitable for use in many applications.



**Material specification please see page 8.**



**With 2nd loop to run bundles in parallel!**



SRT- and SOFTIX-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Article-No.
SRT1807	7.0	180.0	45.0	57	TPU	Black (BK)	50 pcs.	115-07189
SRT2607	7.0	260.0	70.0	57	TPU	Black (BK)	50 pcs.	115-07269
SRT26011	11.0	260.0	65.0	123	TPU	Black (BK)	50 pcs.	115-11269
SRT34011	11.0	340.0	90.0	123	TPU	Black (BK)	50 pcs.	115-11349
SRT58028	28.0	580.0	150.0	360	TPU	Black (BK)	10 pcs.	115-28589
SRT88028	28.0	880.0	240.0	360	TPU	Black (BK)	180 pcs.	115-28889

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

### REZ-Series

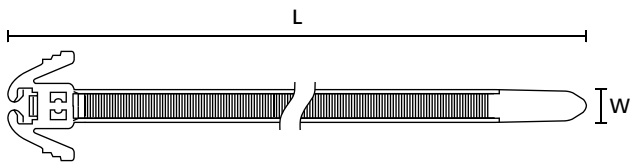
Perfect for use in the packaging industry as a bag closure where access to part of the bag content may be needed but the bag needs to be re-sealed later. Something that often occurs for instance in the catering or service industry. In addition the cable tie can be opened easily with only two fingers by simply pushing the wings of the unique head.

### Features and benefits

- REZ-Series can be released and reused
- Unique head design for simple and rapid use
- Quick-release mechanism for one-hand operation
- Cable tie can be opened even when under tension
- Can still be released when working with gloves



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



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	Fluorescent Pink (FLPK)	100 pcs.	115-00147
	4.7	200.0	50.0	135	PA66	Green (GN)	100 pcs.	115-00106
	4.7	200.0	50.0	135	PA66	Orange (OG)	100 pcs.	115-00132
REZ300	4.7	305.0	80.0	135	PA66	Fluorescent Pink (FLPK)	100 pcs.	115-00138
	4.7	305.0	80.0	135	PA66	Red (RD)	100 pcs.	115-00043

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 and Fixings

Cable ties, releasable

## Cable ties with quick release mechanism, parallel bundling

### 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.

### Features and benefits

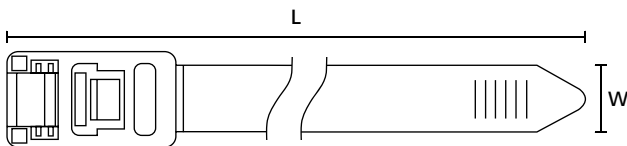
- Releasable and reusable cable tie
- Bears loads of up to 888 N (approx. 90 kg)
- 750 mm long for use in a wide variety of applications
- Can be used for parallel bundling
- Easy to handle when wearing work gloves
- Available in signal yellow and in black




Excess tails can be neatly tucked away.



**Material specification please see page 8.**



SpeedyTie

TYPE	Width (W)	Length (L)	Bundle Ø max.		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

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



## Hook and loop ties

### TEXTIE-Series

The TEXTIE-Series offers a soft bundling method and is ideal for use on telephone cables, optical fibre and network cables. These cable ties can be reopened and reused up to 400 times. A perfect solution for temporary installations and cable management for stage equipment, at outdoor events or for prototype harnessing. Also suitable for use in private or office applications. TEXTIE cable ties are available in various colours and can be used to colour-code cables and/or wires.

### Features and benefits

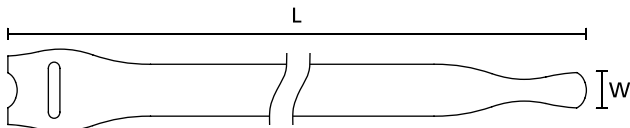
- Quick and simple to use without tools
- Reusable up to 400 times
- Various colours for easy identification
- For indoor and outdoor use
- Can be attached to the bundle permanently
- Resistant to ageing, no corrosion



Due to the functional cable tie design the TEXTIE is fixed on the cable and cannot get lost.



The TEXTIE-Series is available in different colours and lengths.



TEXTIE -Series S, M and L

TYPE	Width (W)	Length (L)	Bundle Ø max.	Material Loop	Material Hook	Colour	Pack Cont.	Article-No.
TEXTIE S	12.5	150.0	45.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	10 pcs.	130-00012
TEXTIE M	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	10 pcs.	130-00013
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Blue (BU)	10 pcs.	130-00018
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Green (GN)	10 pcs.	130-00017
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Red (RD)	10 pcs.	130-00014
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	White (WH)	10 pcs.	130-00021
	12.5	200.0	60.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Yellow (YE)	10 pcs.	130-00016
TEXTIE L	12.5	330.0	100.0	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	10 pcs.	130-00019
TEXTIE 5M	12.5	5,000.0	-	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	1 pc.	130-00020
TEXTIE 25M	13.0	25,000.0	-	Polyamide 6.6 (PA66)	Polypropylene (PP)	Black (BK)	1 pc.	130-00022

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 and Fixings

Cable ties, stainless steel

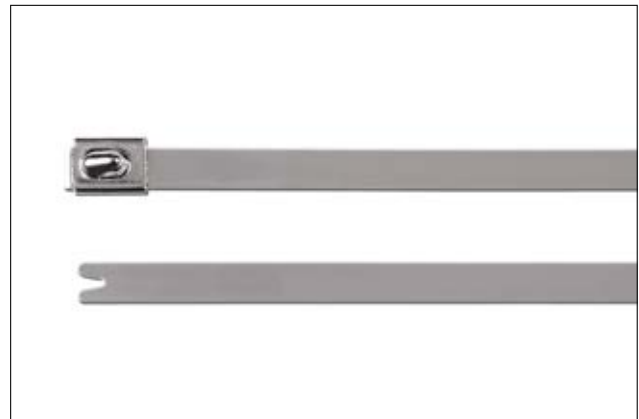
## Cable ties with ball-lock

### MBT-Series, stainless steel 316

Metal ties are predestined for all areas with requirements for high holding force, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industry and on oil platform as well as in mass transit, shipbuilding and mining industry. MBT ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally MBT ties are a good solution to fix lighting in theatres and exhibition halls.

### Features and benefits

- MBT cable ties made from stainless steel 316
- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning



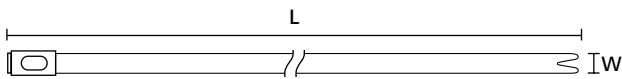
Stainless steel cable ties, uncoated, MBT\_S, MBT\_H.



**Material specification please see page 8.**



**For hard, smooth surface applications, we recommend the use of our LFPC protective channels. More details please see page 30.**



MBT-Series 4.6 mm and 7.9 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.		Material	Pack Cont.	Tools	Article-No.
MBT5S	4.6	127.0	12.0	25.0	900	SS316	100 pcs.	15-18	111-93059
MBT8S	4.6	201.0	12.0	50.0	900	SS316	100 pcs.	15-18	111-93089
MBT14S	4.6	362.0	12.0	102.0	900	SS316	100 pcs.	15-18	111-93149
MBT20S	4.6	521.0	12.0	152.0	900	SS316	100 pcs.	15-18	111-93209
MBT27S	4.6	685.0	12.0	203.0	900	SS316	100 pcs.	15-18	111-93279
MBT33S	4.6	838.0	12.0	254.0	900	SS316	100 pcs.	15-18	111-93339
MBT8H	7.9	201.0	12.0	50.0	2,000	SS316	50 pcs.	15-18	111-94089
MBT14H	7.9	362.0	12.0	102.0	2,000	SS316	50 pcs.	15-18	111-94149
MBT20H	7.9	521.0	12.0	152.0	2,000	SS316	50 pcs.	15-18	111-94209
MBT27H	7.9	685.0	12.0	203.0	2,000	SS316	50 pcs.	15-18	111-94279
MBT33H	7.9	838.0	12.0	254.0	2,000	SS316	50 pcs.	15-18	111-94339

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



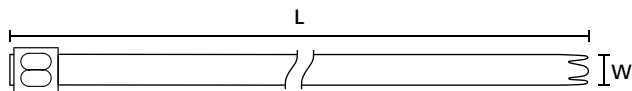
Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



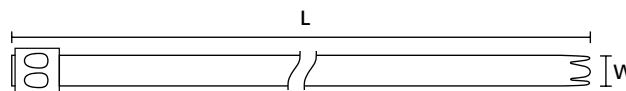


## Cable ties with ball-lock


### MBT-Series, stainless steel 316



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	 N	Material	Pack Cont.	Tools	Article-No.
MBT14XH	12.3	362.0	12.0	102.0	2,700	SS316	50 pcs.	15-18	111-95149
MBT20XH	12.3	521.0	12.0	152.0	2,700	SS316	50 pcs.	15-18	111-95209
MBT27XH	12.3	681.0	12.0	203.0	2,700	SS316	50 pcs.	15-18	111-95279
MBT33XH	12.3	838.0	12.0	254.0	2,700	SS316	50 pcs.	15-18	111-95339
MBT14UH	16.0	362.0	12.0	102.0	4,100	SS316	50 pcs.	15;17	111-01301
MBT20UH	16.0	521.0	12.0	152.0	4,100	SS316	50 pcs.	15;17	111-01302
MBT27UH	16.0	681.0	12.0	203.0	4,100	SS316	50 pcs.	15;17	111-01303
MBT33UH	16.0	838.0	12.0	254.0	4,100	SS316	50 pcs.	15;17	111-01304
MBT43UH	16.0	1,092.0	12.0	330.0	4,100	SS316	25 pcs.	15;17	111-01305
MBT49UH	16.0	1,245.0	12.0	380.0	4,100	SS316	25 pcs.	15;17	111-01306

All dimensions in mm. Subject to technical changes.

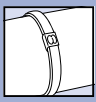
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Recommended Tools			
15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

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



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



# Cable Ties and Fixings

Cable ties, stainless steel

## Double wrap cable ties with ball-lock

**MBTXHD- / MBTUHD-Series, stainless steel 316**

The double wrap ties of the MBT-series are used in applications where a fixing requires an extraordinary high tensile strength.

### Features and benefits

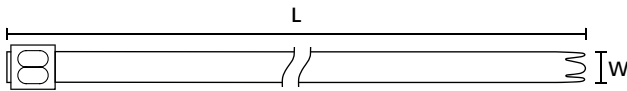
- Stainless steel MBT ties with double wrap operation
- Wraps around the bundle and passes through the head twice
- Very high tensile strength to carry enormous applied loads
- Head with two locking balls
- Resistant to arduous conditions and environments



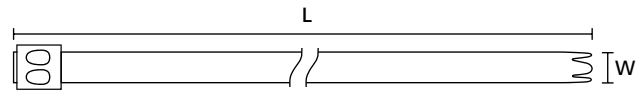
Double wrap stainless steel cable ties, uncoated, MBT\_UHD.



**Material specification please see page 8.**



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.		Material	Pack Cont.	Tools	Article-No.
MBT27XHD	12.3	681.0	17.0	100.0	5,000	SS316	50 pcs.	15-18	111-01307
MBT33XHD	12.3	838.0	17.0	120.0	5,000	SS316	50 pcs.	15-18	111-01308
MBT43XHD	12.3	1,092.0	17.0	160.0	5,000	SS316	25 pcs.	15-18	111-01309
MBT49XHD	12.3	1,245.0	17.0	180.0	5,000	SS316	25 pcs.	15-18	111-01310
MBT60XHD	12.3	1,524.0	17.0	230.0	5,000	SS316	25 pcs.	15-18	111-01311
MBT27UHD	16.0	681.0	25.0	100.0	7,000	SS316	50 pcs.	15;17	111-01312
MBT33UHD	16.0	838.0	25.0	120.0	7,000	SS316	50 pcs.	15;17	111-01313
MBT43UHD	16.0	1,092.0	25.0	160.0	7,000	SS316	25 pcs.	15;17	111-01314
MBT49UHD	16.0	1,245.0	25.0	180.0	7,000	SS316	25 pcs.	15;17	111-01315
MBT60UHD	16.0	1,524.0	25.0	230.0	7,000	SS316	25 pcs.	15;17	111-01316

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

### Recommended Tools

15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

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



## Cable ties with ball-lock and coating

### MBT-FC-Series, stainless steel 316

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits. Fully coated ties can also be used to avoid any reflection. An important consideration for instance in the defence industry.

#### Features and benefits

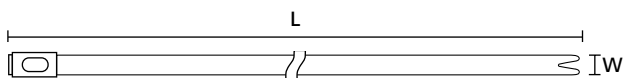
- Fully coated MBT, made from type 316 stainless steel with polyester coating
- Non-releasable locking feature
- Coated cable tie with smooth edges
- Comfortable handling and installation
- Eliminates contact corrosion between dissimilar materials during application



Stainless steel cable ties, coated, MBT\_SFC, MBT\_HFC.



Stainless steel cable ties, coated, MBT\_XHFC.



MBT-Series 4.6 mm and 7.9 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT5SFC	4.6	127.0	15.0	25.0	540	SP, SS316	100 pcs.	15-18	111-00288
MBT8SFC	4.6	201.0	17.0	50.0	540	SP, SS316	100 pcs.	15-18	111-00289
MBT14SFC	4.6	362.0	17.0	102.0	540	SP, SS316	100 pcs.	15-18	111-00290
MBT20SFC	4.6	521.0	17.0	152.0	540	SP, SS316	100 pcs.	15-18	111-00291
MBT27SFC	4.6	681.0	17.0	203.0	540	SP, SS316	100 pcs.	15-18	111-00292
MBT33SFC	4.6	838.0	17.0	254.0	540	SP, SS316	100 pcs.	15-18	111-00293
MBT8HFC	7.9	201.0	17.0	50.0	1,020	SP, SS316	50 pcs.	15-18	111-00294
MBT14HFC	7.9	362.0	17.0	102.0	1,020	SP, SS316	50 pcs.	15-18	111-00295
MBT20HFC	7.9	521.0	17.0	152.0	1,020	SP, SS316	50 pcs.	15-18	111-00296
MBT27HFC	7.9	681.0	17.0	203.0	1,020	SP, SS316	50 pcs.	15-18	111-00297
MBT33HFC	7.9	838.0	17.0	254.0	1,020	SP, SS316	50 pcs.	15-18	111-00298

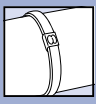
All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Recommended Tools			
15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

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



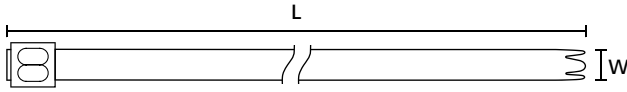


# Cable Ties and Fixings

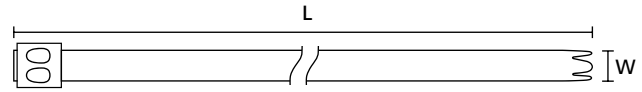
Cable ties, stainless steel

## Cable ties with ball-lock and coating

MBT-FC-Series, stainless steel 316



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.		Material	Pack Cont.	Tools	Article-No.
MBT14XHFC	12.3	362.0	17.0	102.0	1,620	SP, SS316	50 pcs.	15-18	111-00299
MBT17XHFC	12.3	434.0	17.0	125.0	1,620	SP, SS316	50 pcs.	15-18	111-01500
MBT20XHFC	12.3	521.0	17.0	152.0	1,620	SP, SS316	50 pcs.	15-18	111-00300
MBT23XHFC	12.3	575.0	17.0	168.0	1,620	SP, SS316	50 pcs.	15-18	111-01501
MBT27XHFC	12.3	681.0	17.0	203.0	1,620	SP, SS316	50 pcs.	15-18	111-00301
MBT30XHFC	12.3	754.0	17.0	225.0	1,620	SP, SS316	50 pcs.	15-18	111-01502
MBT33XHFC	12.3	838.0	17.0	254.0	1,620	SP, SS316	50 pcs.	15-18	111-00302
MBT43XHFC	12.3	1,092.0	17.0	330.0	1,620	SP, SS316	25 pcs.	15-18	111-01503
MBT49XHFC	12.3	1,245.0	17.0	380.0	1,620	SP, SS316	25 pcs.	15-18	111-01504
MBT14UHFC	16.0	362.0	25.0	102.0	2,500	SP, SS316	50 pcs.	15;17	111-01512
MBT17UHFC	16.0	434.0	25.0	125.0	2,500	SP, SS316	50 pcs.	15;17	111-01513
MBT20UHFC	16.0	521.0	25.0	152.0	2,500	SP, SS316	50 pcs.	15;17	111-01514
MBT23UHFC	16.0	575.0	25.0	168.0	2,500	SP, SS316	50 pcs.	15;17	111-01515
MBT27UHFC	16.0	681.0	25.0	203.0	2,500	SP, SS316	50 pcs.	15;17	111-01516
MBT30UHFC	16.0	754.0	25.0	225.0	2,500	SP, SS316	50 pcs.	15;17	111-01517
MBT33UHFC	16.0	838.0	25.0	254.0	2,500	SP, SS316	50 pcs.	15;17	111-01518
MBT43UHFC	16.0	1,092.0	25.0	330.0	2,500	SP, SS316	25 pcs.	15;17	111-01519
MBT49UHFC	16.0	1,245.0	25.0	380.0	2,500	SP, SS316	25 pcs.	15;17	111-01520

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

### Recommended Tools

15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

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



## Double wrap cable ties with ball-lock and coating

**MBTXHDFC- / MBTUHDFC-Series, stainless steel 316**

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits. Fully coated ties can also be used to avoid any reflection. An important consideration for instance in the defence industry.

### Features and benefits

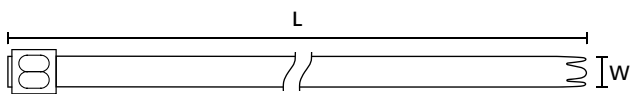
- MBT cable ties, made from stainless steel SS316 with a polyester coating
- Non-releasable locking feature
- Double wrap operation
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning



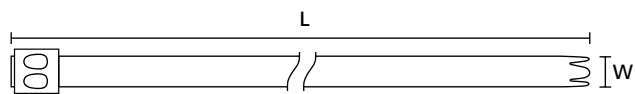
Stainless steel cable ties, coated, MBT\_UHDFC.



**Material specification please see page 8.**



MBT-Series 12.3 mm width



MBT-Series 16.0 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT27XHDFC	12.3	681.0	17.0	100.0	2,500	SS316, SP	50 pcs.	15-18	111-01505
MBT33XHDFC	12.3	838.0	17.0	120.0	2,500	SS316, SP	50 pcs.	15-18	111-01506
MBT43XHDFC	12.3	1,092.0	17.0	160.0	2,500	SS316, SP	25 pcs.	15-18	111-01507
MBT49XHDFC	12.3	1,245.0	17.0	180.0	2,500	SS316, SP	25 pcs.	15-18	111-01508
MBT60XHDFC	12.3	1,524.0	17.0	230.0	2,500	SS316, SP	25 pcs.	15-18	111-01509
MBT27UHDFC	16.0	681.0	25.0	100.0	5,000	SS316, SP	50 pcs.	15;17	111-01521
MBT33UHDFC	16.0	838.0	25.0	120.0	5,000	SS316, SP	50 pcs.	15;17	111-01522
MBT43UHDFC	16.0	1,092.0	25.0	160.0	5,000	SS316, SP	25 pcs.	15;17	111-01523
MBT49UHDFC	16.0	1,245.0	25.0	180.0	5,000	SS316, SP	25 pcs.	15;17	111-01524
MBT60UHDFC	16.0	1,524.0	25.0	230.0	5,000	SS316, SP	25 pcs.	15;17	111-01525

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

### Recommended Tools

15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

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



# Cable Ties and Fixings

Cable ties, stainless steel

## Protective channel for stainless steel ties

### LFPC-Series

When used in conjunction with the MBT, MST, MLT and AMT range of stainless steel cable ties this channel gives the cable protection against chafing, vibration and shock. Ideal for use in arduous conditions such as those found on board ships, oil rigs or in nuclear power stations.

#### Features and benefits

- LFPC channel, manufactured from Polyolefin
- Works with MBT-, MST-, MLT- and AMT-Series
- Smooth surface protects bundle against chafing caused by vibrations and shocks
- Can be cut from roll to any length
- Halogenfree
- Flame retardant



Protective channel LFPC, polyolefin, black.



**Material specification please see page 8.**



The fire protection properties of the material relate to the test performed on defined test samples. This is a test under laboratory conditions and not directly transferable to the product made from this material.



LFPC

TYPE	Width (W)	For Ties	Material	Article-No.
LFPC70	7.0	MBTS	PO	111-93000
LFPC83	8.3	MBTH	PO	111-00257
LFPC103	10.3	MBTH	PO	111-94000
LFPC129	12.9	MBTXH	PO	111-00253
LFPC132	13.2	MBTXH	PO	111-00254
LFPC150	15.0	MBTXH	PO	111-95000
LFPC163	16.3	AMT, MBTUH	PO	111-00255

All dimensions in mm. Subject to technical changes.



## 2-pieces fixing ties with deep hole anchor, with disc, for round holes

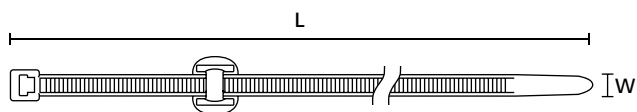
### Deep hole anchor DHA5.5 - DHA8.4

#### Features and benefits

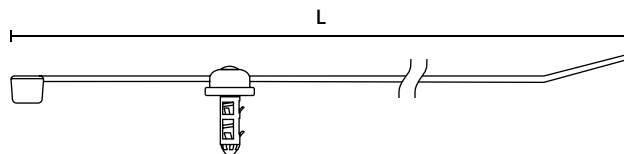
- Pre-assembled 2-piece fixing tie with deep hole anchor
- The high 'pull off' forces are due to the integrated metal clamp
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises ingress of dust and dirt
- Suitable for use within blind holes with or without thread



DHA5.5x15 and DHA8.4x20 for blind hole applications.



Fixing tie with deep hole anchor



Fixing tie with deep hole anchor

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50RDHA5.5x15		5,4 - 5,6	15.0	4.6	202.0	45.0	225	PA46	Grey (GY)	1-2;4-6;25	156-01203
T50RDHA8.4x20		8,3 - 8,5	20.0	4.6	202.0	45.0	225	PA46	Grey (GY)	1-2;4-6;25	156-01155

All dimensions in mm. Subject to technical changes.

Recommended Tools					
1	2	4	5	6	25
MK10-SB	MK20	MK3PNSP2	EVO7i	MK7P	EVOcut

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

### Information and installation instructions for self-adhesive mounting bases

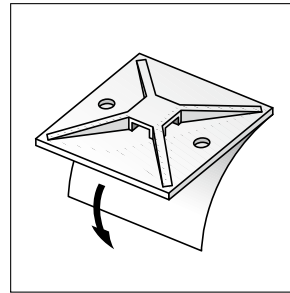
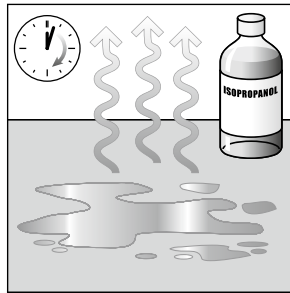
HellermannTyton uses different types of adhesives for self-adhesive bases: acrylate and synthetic rubber. These differ in the operating temperature range and the 'pull off' force of the adhesive. Synthetic rubber has an excellent initial grip, allowing for almost immediate use.

Acrylate adhesive has less initial grip, so there might be a need to wait for a few hours before use (depending on the surface), but has a higher, "pull off" force" than synthetic rubber. This enables a permanent fixing lasting months or even years.

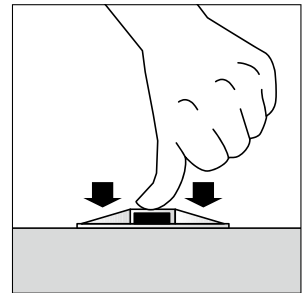
### Instructions for use



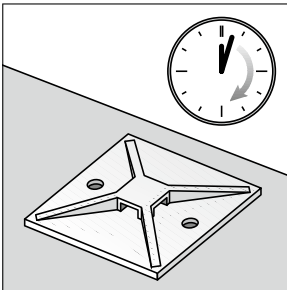
1. The surface must be dry, free from dust, oil, oxides, parting agents and other impurities. The surface to be glued should be cleaned using a clean cloth and isopropanol/water (50/50). When using other appropriate cleaning agents, ensure that they do not attack the surface nor leave any residues. After cleaning allow the surface to air-dry completely.



2. Peel off protective backing and ensure the adhesive area is not touched.



3. Press down firmly on the base with the thumbs for several seconds.



4. Depending on the type of adhesive, wait for several minutes (synthetic rubber) or hours (acrylate) so that the adhesive can bond completely with the surface.



**We will be happy to send you on request an up-to-date technical datasheet for whichever adhesive you are using.**





## Paste adhesive mount

### PMB mount for uneven surfaces

PMB-Series offers a fixing solution wherever screw fixing is not allowed. Due to the design the mounts can even be installed onto uneven surfaces. PMB paste mounts are used in the railway industry as well as in the renewable energy industry. Further applications are in the electrical industry and the production of switching cabinets. PMB-Series is suitable for fixings with paste/liquid adhesive.

### Features and benefits

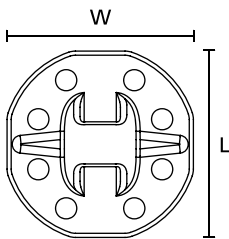
- PMB-Series for fixings with paste / liquid adhesive
- Mount geometry offers a good form closure with cured adhesive
- Can even be installed onto uneven surfaces
- PMB5 can also be applied in combination with hot-melt adhesive, as mount is made of heat resistant PA66
- PMB3 is made of flame-retardant material PA666V0



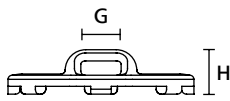
PMB5 mount with paste adhesive.



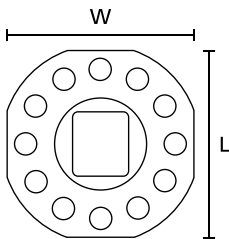
**Material specification please see page 8.**



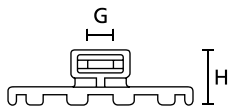
PMB3 Mount (plan view)



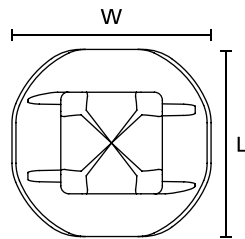
PMB3 Mount (front view)



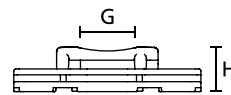
PMB5 Mount (plan view)



PMB5 Mount (front view)



PMB8 Mount (plan view)



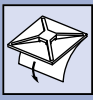
PMB8 Mount (front view)

TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Article-No.
PMB3	22.6	22.6	5.4	4.7	PA666V0	Black (BK)	151-02575
PMB5	36.0	36.0	10.7	4.8	PA66HS	Black (BK)	151-02255
PMB8	47.0	50.0	11.2	13.0	PA66/6HIRHS	Black (BK)	151-03196

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

**EN 45545-2**

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



# Cable Ties and Fixings

Fixing products for self-adhesive fixing

## Cable tie mounts with high performance adhesive

### FlexTack-Series FMB for round and angled surfaces

FlexTack cable tie mounts can be successfully applied to a variety of high- and low-energy surfaces such as glass, metals (including painted, varnished or powder-coated surfaces) as well as plastics. FlexTack provides a reliable fixing solution where it is impractical to use screws or bolts. The unique design in combination with the special acrylate adhesive makes professional cable management easy.

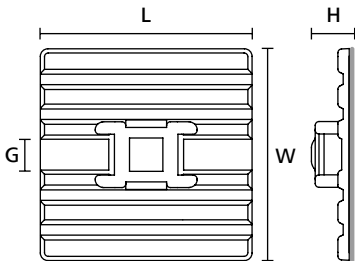
#### Features and benefits

- Flexible mount for round and angled surfaces
- FMB mounts with homogeneous system of acrylic adhesive
- Allows greater design freedom and offers uniform stress distribution along with weight reduction
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off
- 4-way entry for cable tie for quicker and more flexible installation
- FlexTack cable tie mounts are also suitable for high energy surfaces like metal or glass.



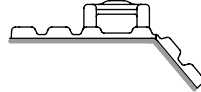
Flexible cable tie mount, FlexTack in use on a concave surface.

<b>MATERIAL</b>	Polyamide 6.6, heat stabilised (PA66HS)
<b>Adhesive</b>	Acrylate with base of acrylic foam
<b>Operating Temperature</b>	-40 °C to +85 °C
<b>Flammability</b>	UL 94 V2 (excluding adhesive)

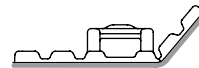


Flexible Adhesive Mount FMB4APT-A (plan view)

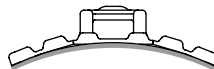
Flexible Adhesive Mount FMB4APT-A (side view)



Flexible Adhesive Mount FMB4APT-A (down angled, side view)



Flexible Adhesive Mount FMB4APT-A (up angled, side view)



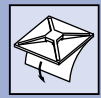
Flexible Adhesive Mount FMB4APT-A (convex, side view)



Flexible Adhesive Mount FMB4APT-A (concave, 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.  
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## Cable tie mounts with high performance adhesive

### SolidTack-Series MB

SolidTack MB Series mounts have a square design and are fairly common in areas like electrical cabinet, railway, aerospace, automotive and agriculture machinery. The premium self-adhesive bonds well on high and low-energy surfaces like plastics, metal, varnish or paint and is suitable for a wide range of applications.

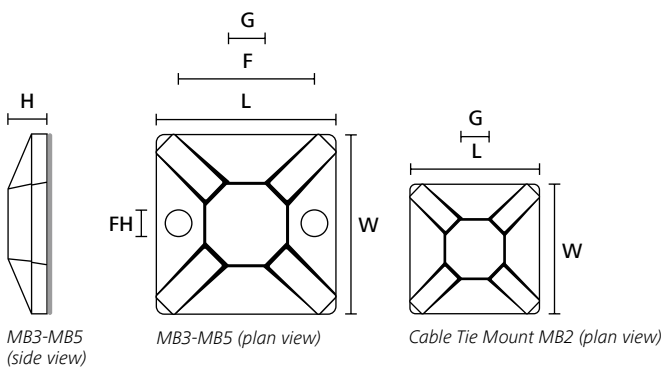
#### Features and benefits

- MB mounts with homogeneous system of acrylic adhesive
- Very good initial adhesion, increases with time
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off



SolidTack MB Series mounts with square design - screwable, self-adhesive - suitable for a wide range of applications like fastening of cables in the automotive machinery.

<b>MATERIAL</b>	Polyamide 6.6 (PA66)
<b>Adhesive</b>	Acrylate with base of acrylic foam
<b>Operating Temperature</b>	-40 °C to +85 °C
<b>Flammability</b>	UL 94 V2 (excluding adhesive)



TYPE	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Cont.	Article-No.
MB2APT-A	13.0	13.0	4.1	2.7	PA66	Black (BK)	mod. Acrylate	100 pcs.	151-02243
MB3APT-A	19.0	19.0	3.8	4.4	PA66	Black (BK)	mod. Acrylate	100 pcs.	151-02244
	19.0	19.0	3.8	4.4	PA66	White (WH)	mod. Acrylate	100 pcs.	151-02978
MB4APT-A	28.0	28.0	4.7	5.6	PA66	Black (BK)	mod. Acrylate	100 pcs.	151-02245
	28.0	28.0	4.7	5.6	PA66	White (WH)	mod. Acrylate	100 pcs.	151-02246
MB5APT-A	38.0	38.0	6.4	10.0	PA66	Black (BK)	mod. Acrylate	100 pcs.	151-02247

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# Cable Ties and Fixings

Fixing products for self-adhesive fixing

## Cable tie mounts

### TY-Series rectangle design, self-adhesive

Where speed, simplicity, and a firm fixing base are required these self adhesive clips are ideal. Particularly suitable for use in control cabinets, telecoms equipment or domestic appliances where the use of holes, screws, or nuts and bolts is impractical or undesirable.

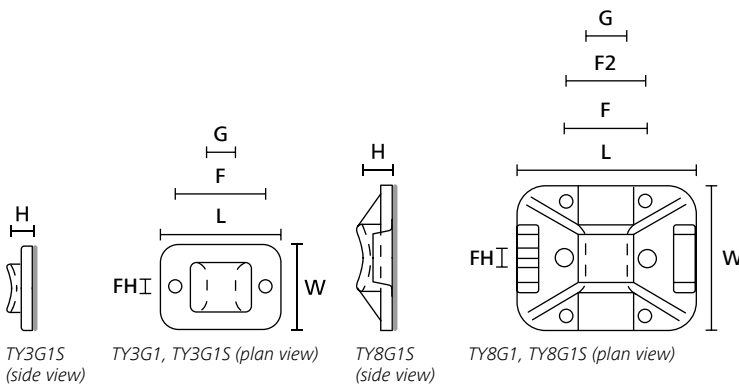
#### Features and benefits

- 2-way mounting base for safe guiding of cables and conduits
- Suitable for applications with minimal space
- Mounted before cable installation



TY-Series selfadhesive mounts with rectangle design.

<b>MATERIAL</b>	Polyamide 6.6 (PA66)
<b>Adhesive</b>	Acrylate with base of polyurethane foam
<b>Operating Temperature</b>	-40 °C to +85 °C
<b>Flammability</b>	UL 94 V2 (excluding adhesive)



TYPE	Drawing	Width (W)	Length (L)	Height (H)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Cont.	Article-No.
TY8G1S		25.0	32.0	5.5	8.0	PA66	Natural (NA)	Acrylate	100 pcs.	151-11819
TY3G1S		14.0	20.0	3.7	4.0	PA66	Natural (NA)	Acrylate	100 pcs.	151-11319

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



## Screw fixing mounts

### Cable tie mounts with curved design

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from agriculture to truck manufacturing. They offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 8.3 mm width.

#### Features and benefits

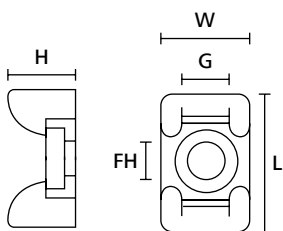
- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration
- Mounts are available in various sizes and materials



Cable Tie Mounts KR6G5, KR8G5 and CTM.



**Material specification**  
please see page 8.



KR6G5,  
KR8G5  
and CTM  
(side view)

KR6G5, KR8G5 and  
CTM (plan view)

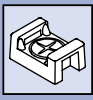
TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
KR6G5	12.0	18.0	9.0	4,5	6.0	PA66	Natural (NA)	100 pcs.	151-24619
	12.0	18.0	9.0	4,5	6.0	PA66W	Black (BK)	100 pcs.	151-24660
KR8G5	14.5	25.0	12.0	6,5	8.0	PA66	Natural (NA)	100 pcs.	151-24819
	14.5	25.0	12.0	6,5	8.0	PA66HS	Black (BK)	100 pcs.	151-24850

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**EN 45545-2**

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# Cable Ties and Fixings

Fixing products for screws

## Aluminium P-Clamps

### Alu-P-Clamp with / without chloroprene insert

Manufactured from a high quality aluminium, these metal P-Clamps provide flexibility whilst providing 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, reducing noise and also providing electrical isolation. They are commonly used in caravan construction, the defence and railway industry as well as in the renewable energy sector.

### Features and benefits

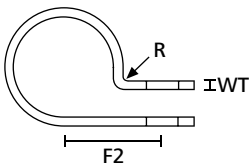
- Simple and secure pipe or cable fixation
- Can be combined with chloroprene rubber for vibration resistance
- Ideal for use in high temperature applications
- Suitable for applications needing strength of metal components



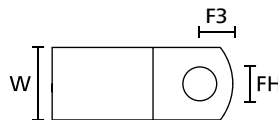
P-Clamps manufactured in polyamide, aluminium or aluminium with a chloroprene insert.



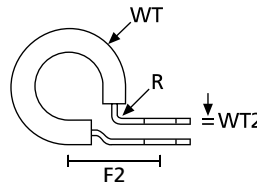
**Material specification please see page 8.**



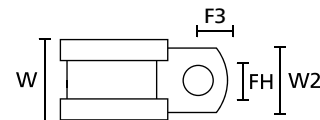
ALU P-Clamp (side view)



ALU P-Clamp (plan view)



ALU\_C P-Clamp with chloroprene insert (side view)



ALU\_C P-Clamp with chloroprene insert (plan view)

TYPE	Drawing	Wall (WT2)	Hole Ø (FH)	Fixing Hole Centres (F2)	Fixing Hole Centres (F3)	Bundle Ø max.	Material	Colour	Article-No.
ALU4C		0.8	5,2	11.6	5.5	3.2	AL, CR	Black (BK)	211-15040
ALU6C		0.8	5,2	13.4	5.5	6.4	AL, CR	Black (BK)	211-15060
ALU8C		0.8	5,2	15.0	5.5	9.5	AL, CR	Black (BK)	211-15080
ALU12C		1.3	5,2	19.9	5.5	15.9	AL, CR	Black (BK)	211-15120
ALU14C		1.3	5,2	21.5	5.5	19.1	AL, CR	Black (BK)	211-15140
ALU16C		1.3	5,2	23.1	5.5	22.2	AL, CR	Black (BK)	211-15160
ALU19C		1.3	5,2	25.5	5.5	27.0	AL, CR	Black (BK)	211-15190
ALU23C		1.6	5,2	29.4	5.5	33.3	AL, CR	Black (BK)	211-15230
ALU26C		1.6	5,2	31.7	5.5	38.1	AL, CR	Black (BK)	211-15260
ALU29C		1.6	5,2	34.1	5.5	42.9	AL, CR	Black (BK)	211-15290
ALU34C		1.6	5,2	38.1	5.5	50.8	AL, CR	Black (BK)	211-15340
ALU4			-	5,2	11.6	5.5	6.4	AL	Natural (NA)
ALU6	-		5,2	13.4	5.5	9.5	AL	Natural (NA)	211-10060
ALU8	-		5,2	15.0	5.5	12.7	AL	Natural (NA)	211-10080
ALU11	-		5,2	19.1	5.5	17.5	AL	Natural (NA)	211-10110
ALU12	-		5,2	19.9	5.5	19.1	AL	Natural (NA)	211-10120
ALU13	-		5,2	20.7	5.5	20.6	AL	Natural (NA)	211-10130

All dimensions in mm. Subject to technical changes.

# We're ready to tailor solutions that fit all your needs and help you achieve your ambitions

Thanks to our development expertise, we are able to support you in your projects and provide you with ideal bespoke part solutions. We are accustomed to specific, complex and confidential requests. Our teams are based in close proximity to our customers and response times are quick.

## MADE FOR REAL



### Heat shrinkable tubing 2:1 - Self extinguishing

#### TCN20

TCN20 is suitable for a wide range of applications like electrical insulations, mechanical protection and cable bundling.

#### Features and benefits

- Thin wall general purpose polyolefin tubing
- Self extinguishing, UL224 VW-1, CSA
- Fast shrinking
- Low shrink temperature



Heat shrink tubing TCN20.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	2:1
<b>Operating Temperature</b>	-55 °C to +125 °C
<b>Min. Shrink Temperature</b>	+100 °C
<b>Longitudinal Change After Shrinkage</b>	+/-5%
<b>Dielectric Strength</b>	20 kV/mm
<b>Flammability</b>	self-extinguishing, UL 224 VW-1



Heat Shrinkable Tubing 2:1



TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TCN20-1.2/0.6	1.2	3/64 "	0.6	0.30	300 m	Black (BK)	30	300-73010
TCN20-1.6/0.8	1.6	1/16 "	0.8	0.35	300 m	Black (BK)	30	300-73020
TCN20-2.4/1.2	2.4	3/32 "	1.2	0.45	300 m	White (WH)	30	300-73039
	2.4	3/32 "	1.2	0.45	300 m	Black (BK)	30	300-73030
TCN20-3.2/1.6	3.2	1/8 "	1.6	0.45	300 m	White (WH)	30	300-73049
	3.2	1/8 "	1.6	0.45	300 m	Black (BK)	30	300-73040
TCN20-4.8/2.4	4.8	3/16 "	2.4	0.50	300 m	White (WH)	30	300-73059
	4.8	3/16 "	2.4	0.50	300 m	Black (BK)	30	300-73050
TCN20-6.4/3.2	6.4	1/4 "	3.2	0.55	300 m	White (WH)	30	300-73069
	6.4	1/4 "	3.2	0.55	300 m	Black (BK)	30	300-73060
TCN20-9.5/4.8	9.5	3/8 "	4.7	0.55	100 m	White (WH)	30	300-73079
	9.5	3/8 "	4.8	0.55	100 m	Black (BK)	30	300-73070

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

Recommended Tools
30
H6100

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



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### Heat shrinkable tubing 2:1 - Self extinguishing

#### TCN20



TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TCN20-12.7/6.4	12.7	1/2 "	6.4	0.65	100 m	White (WH)	30	300-73089
	12.7	1/2 "	6.4	0.65	100 m	Black (BK)	30	300-73080
TCN20-19.1/9.5	19.1	3/4 "	9.5	0.80	60 m	White (WH)	30	300-73099
	19.1	3/4 "	9.5	0.80	60 m	Black (BK)	30	300-73090
TCN20-25.4/12.7	25.4	1 "	12.7	0.90	60 m	White (WH)	30	300-73109
	25.4	1 "	12.7	0.90	60 m	Black (BK)	30	300-73100
TCN20-38.1/19.1	38.1	1-1/2 "	19.1	1.02	30 m	White (WH)	30	300-73119
	38.1	1-1/2 "	19.1	1.02	30 m	Black (BK)	30	300-73110
TCN20-50.8/25.4	50.8	2 "	25.4	1.15	30 m	White (WH)	30	300-73129
	50.8	2 "	25.4	1.15	30 m	Black (BK)	30	300-73120
TCN20-76.2/38.1	76.2	3 "	38.1	1.02	15 m	Black (BK)	30	300-73541
	76.2	3 "	38.1	1.02	15 m	White (WH)	30	300-73650
TCN20 102.0	101.6	4 "	50.8	1.02	-	Black (BK)	30	300-73400
TCN20-101.6/50.8	101.6	4 "	50.8	1.02	15 m	White (WH)	30	300-73404

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

#### Recommended Tools

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H6100

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



### Heat shrinkable tubing 3:1 - Self extinguishing

#### TCN20 overexpanded

Mechanical and electrical protection applications for parts with high diameter variances. This fast shrinking tubing makes it suitable for high volume production.

#### Features and benefits

- Thin wall overexpanded polyolefin tubing
- Self extinguishing and low shrink temperature
- Highly flame-retardant, UL224 VW-1



Heat shrink tubing TCN20 overexpanded.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	3:1
<b>Operating Temperature</b>	-55 °C to +125 °C
<b>Min. Shrink Temperature</b>	+100 °C
<b>Longitudinal Change After Shrinkage</b>	+/-5%
<b>Dielectric Strength</b>	20 kV/mm
<b>Flammability</b>	self-extinguishing



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TCN20-2.4/0.8	2.4	0.8	0.40	300 m	Black (BK)	30	300-73130
TCN20-3.2/1.2	3.2	1.2	0.50	300 m	Black (BK)	30	300-73140
TCN20-4.8/1.6	4.8	1.6	0.50	300 m	Black (BK)	30	300-73150
TCN20-6.6/2.4	6.6	2.4	0.55	300 m	Black (BK)	30	300-73160
TCN20-9.5/3.2	9.5	3.2	0.65	100 m	Black (BK)	30	300-73170
TCN20-12.7/4.8	12.7	4.8	0.75	100 m	Black (BK)	30	300-73180
TCN20-19.0/6.4	19.0	6.4	0.75	60 m	Black (BK)	30	300-73190
TCN20-25.4/9.5	25.4	9.5	0.80	60 m	Black (BK)	30	300-73200
TCN20-38.0/12.7	38.0	12.7	0.95	30 m	Black (BK)	30	300-73210
TCN20-52.0/22.0	52.0	22.0	1.00	-	Black (BK)	30	300-73220

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

Recommended Tools
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H6100

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



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

### 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.

#### Features and benefits

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



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



Standard sizes available in colours black, red, blue, yellow, white and green-yellow.



Heat Shrinkable Tubing 2:1



<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	2:1
<b>Operating Temperature</b>	-55 °C to +135 °C
<b>Min. Shrink Temperature</b>	+135 °C
<b>Longitudinal Change After Shrinkage</b>	-5% max.
<b>Dielectric Strength</b>	>21 kV/mm
<b>Flammability</b>	self-extinguishing, UL 224 VW-1

TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
HFT-A-1.2/0.6	1.2	3/64 "	0.6	0.40	400 m	Black (BK)	-	30	305-01241
	1.2	3/64 "	0.6	0.40	400 m	White (WH)	VG 95343 T05 A 001 L	30	305-01209
HFT-A-1.6/0.8	1.6	1/16 "	0.8	0.40	400 m	Black (BK)	-	30	305-01642
	1.6	1/16 "	0.8	0.40	400 m	White (WH)	VG 95343 T05 A 002 L	30	305-01609
HFT-A-2.4/1.2	2.4	3/32 "	1.2	0.50	-	Black (BK)	-	30	305-02444
	2.4	3/32 "	1.2	0.50	100 m	White (WH)	VG 95343 T05 A 003 L	30	305-02409
HFT-A-3.2/1.6	3.2	1/8 "	1.6	0.50	-	Black (BK)	-	30	305-03244
	3.2	1/8 "	1.6	0.50	100 m	White (WH)	VG 95343 T05 A 004 L	30	305-03209
HFT-A-4.8/2.4	4.8	3/16 "	2.4	0.50	-	Black (BK)	-	30	305-04843
	4.8	3/16 "	2.4	0.50	75 m	White (WH)	VG 95343 T05 A 005 L	30	305-04809
HFT-A-6.4/3.2	6.4	1/4 "	3.2	0.60	-	Black (BK)	-	30	305-06446
	6.4	1/4 "	3.2	0.60	75 m	White (WH)	VG 95343 T05 A 006 L	30	305-06409

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

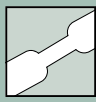
#### Recommended Tools

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H6100

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

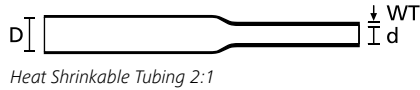


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### Heat shrinkable tubing 2:1 - flexible and coloured

#### HFT-A - self extinguishing



TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
HFT-A-9.5/4.8	9.5	3/8 "	4.8	0.60	50 m	Black (BK)	VG 95343 T05 A 007 A	30	305-09544
	9.5	3/8 "	4.8	0.60	50 m	White (WH)	VG 95343 T05 A 007 L	30	305-09509
HFT-A-12.7/6.4	12.7	1/2 "	6.4	0.60	50 m	Black (BK)	VG 95343 T05 A 008 A	30	305-12743
	12.7	1/2 "	6.4	0.60	50 m	White (WH)	VG 95343 T05 A 008 L	30	305-12709
HFT-A-19.0/9.5	19.0	3/4 "	9.5	0.80	25 m	Black (BK)	VG 95343 T05 A 009 A	30	305-19042
	19.0	3/4 "	9.5	0.80	25 m	White (WH)	VG 95343 T05 A 009 L	30	305-19009
HFT-A-25.4/12.7	25.4	1 "	12.7	0.90	25 m	Black (BK)	VG 95343 T05 A 010 A	30	305-25440
	25.4	1 "	12.7	0.90	25 m	White (WH)	VG 95343 T05 A 010 L	30	305-25409
HFT-A-38.0/19.0	38.0	1-1/2 "	19.0	1.00	50 m	Black (BK)	VG 95343 T05 A 011 A	30	305-38100
	38.0	1-1/2 "	19.0	1.00	50 m	White (WH)	VG 95343 T05 A 011 L	30	305-38109
HFT-A-50.8/25.4	51.0	2 "	25.4	1.10	35 m	Black (BK)	VG 95343 T05 A 012 A	30	305-50800
	51.0	2 "	25.4	1.10	35 m	White (WH)	VG 95343 T05 A 012 L	30	305-50809

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

#### Recommended Tools

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H6100

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

### Heat shrinkable tubing 2:1 - flexible and transparent

#### TF24

Protects wire and cable markers subject to abuse, while permitting inspectability of each item covered. Protects electronic components while permitting their identification and inspection.

#### Features and benefits

- Transparent, flexible polyolefin tubing
- Protects identification marking perfect
- Halogen free
- Good mechanical and chemical resistance
- VG and additional industrial approvals



TF24 transparent tubing with 2:1 shrink ratio.

**i** Cut lengths available on request. Please contact us!



Heat Shrinkable Tubing 2:1

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	2:1
<b>Operating Temperature</b>	-55 °C to +135 °C
<b>Min. Shrink Temperature</b>	+110 °C
<b>Longitudinal Change After Shrinkage</b>	+/-5% max.
<b>Dielectric Strength</b>	30 kV/mm
<b>Flammability</b>	not flame-retardant



TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
TF24-1.2/0.6	1.2	3/64 "	0.6	0.41	100 m	Transparent (CL)	VG 95343 T05 B 001 M	30	309-40123
TF24-1.6/0.8	1.6	1/16 "	0.8	0.43	100 m	Transparent (CL)	VG 95343 T05 B 002 M	30	309-40163
TF24-2.4/1.2	2.4	3/32 "	1.2	0.51	100 m	Transparent (CL)	VG 95343 T05 B 003 M	30	309-40243
TF24-3.2/1.6	3.2	1/8 "	1.6	0.51	100 m	Transparent (CL)	VG 95343 T05 B 004 M	30	309-40323
TF24-4.8/2.4	4.8	3/16 "	2.4	0.51	60 m	Transparent (CL)	VG 95343 T05 B 005 M	30	309-50483
TF24-6.4/3.2	6.4	1/4 "	3.2	0.64	60 m	Transparent (CL)	VG 95343 T05 B 006 M	30	309-50643
TF24-9.5/4.8	9.5	3/8 "	4.8	0.64	50 m	Transparent (CL)	VG 95343 T05 B 007 M	30	309-40953
TF24-12.7/6.4	12.7	1/2 "	6.4	0.64	50 m	Transparent (CL)	VG 95343 T05 B 008 M	30	309-41273
TF24-19.1/9.5	19.1	3/4 "	9.5	0.76	50 m	Transparent (CL)	VG 95343 T05 B 009 M	30	309-31903
TF24-25.4/12.7	25.4	1 "	12.7	0.89	50 m	Transparent (CL)	VG 95343 T05 B 010 M	30	309-32543
TF24-38.1/19.1	38.1	1-1/2 "	19.1	1.02	60 m	Transparent (CL)	VG 95343 T05 B 011 M	30	309-33813
TF24-50.8/25.4	50.8	2 "	25.4	1.14	60 m	Transparent (CL)	VG 95343 T05 B 012 M	30	309-35083
TF24-76.2/38.1	76.2	3 "	38.1	1.27	30 m	Transparent (CL)	VG 95343 T05 B 013 M	30	309-37603
TF24-101.6/50.8	101.6	4 "	50.8	1.40	15 m	Transparent (CL)	VG 95343 T05 B 014 M	30	309-31023

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

Recommended Tools
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H6100

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



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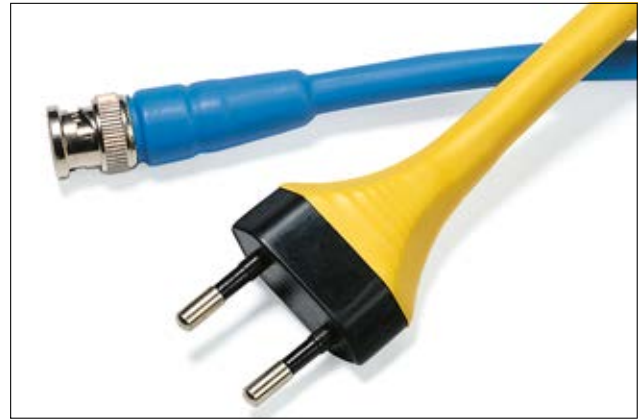
### Heat shrinkable tubing 3:1 - flexible and coloured

#### TF31

If higher fire protection is a requirement TF31 heat shrinkable tubing is a good choice. It is used for protection, insulation and identification wires, cables and light duty harnesses.

#### Features and benefits

- Thin wall, very flexible polyolefin tubing
- A small range of sizes cover a wide range of diameters allowing reduced inventory
- Fast shrinking and low shrink temperature
- Flame-retardant, UL224 VW1 listed



TF31 with 3:1 shrink ratio allowing for a wider range of application.



**Cut lengths available on request. Please contact us!**



**More colours on request.**



Heat Shrinkable Tubing 3:1

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	3:1
<b>Operating Temperature</b>	-55 °C to +135 °C
<b>Min. Shrink Temperature</b>	+90 °C
<b>Longitudinal Change After Shrinkage</b>	+5%/-15%
<b>Dielectric Strength</b>	≥30 kV/mm
<b>Flammability</b>	self-extinguishing, UL 224 VW-1



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TF31-1.5/0.5	1.5	0.5	0.50	30 m	Black (BK)	30	333-30150
	1.5	0.5	0.50	30 m	White (WH)	30	333-30159
TF31-3/1	3.0	1.0	0.60	30 m	Black (BK)	30	333-30300
	3.0	1.0	0.60	30 m	White (WH)	30	333-30309
TF31-6/2	6.0	2.0	0.70	30 m	Black (BK)	30	333-30600
	6.0	2.0	0.70	30 m	White (WH)	30	333-30609
TF31-9/3	9.0	3.0	0.80	30 m	Black (BK)	30	333-30900
	9.0	3.0	0.80	30 m	White (WH)	30	333-30909
TF31-12/4	12.0	4.0	0.85	30 m	Black (BK)	30	333-31200
	12.0	4.0	0.85	30 m	White (WH)	30	333-31209
TF31-18/6	18.0	6.0	1.00	30 m	Black (BK)	30	333-31800
	18.0	6.0	1.00	30 m	White (WH)	30	333-31809
TF31-24/8	24.0	8.0	1.20	30 m	Black (BK)	30	333-32400
	24.0	8.0	1.20	30 m	White (WH)	30	333-32409
TF31-40/13	40.0	13.0	1.25	30 m	Black (BK)	30	333-34000
	40.0	13.0	1.25	30 m	White (WH)	30	333-34009

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

#### Recommended Tools

30  
H6100

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



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

### Heat shrinkable tubing 3:1 - flexible and transparent

#### TF34

Protects wire and cable markers subject to abuse, while permitting inspectability of each item covered. Protects electronic components while permitting their identification and inspection.

#### Features and benefits

- Transparent, flexible polyolefin tubing
- Protects identification marking perfectly
- A small range of sizes required to cover a wide range of diameters allowing reduced inventory
- Halogen free



TF34 transparent tubing with 3:1 shrink ratio allowing for a wider range of application.



**Cut lengths available on request. Please contact us!**

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	3:1
<b>Operating Temperature</b>	-55 °C to +135 °C
<b>Min. Shrink Temperature</b>	+110 °C
<b>Longitudinal Change After Shrinkage</b>	-5% max.
<b>Dielectric Strength</b>	46 kV/mm
<b>Flammability</b>	not flame-retardant



Heat Shrinkable Tubing 3:1

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TF34-1.5/0.5	1.5	0.5	0.50	30 m	Transparent (CL)	30	333-30153
TF34-3/1	3.0	1.0	0.50	30 m	Transparent (CL)	30	333-30303
TF34-6/2	6.0	2.0	0.70	30 m	Transparent (CL)	30	333-30603
TF34-9/3	9.0	3.0	0.80	30 m	Transparent (CL)	30	333-30903
TF34-12/4	12.0	4.0	0.85	30 m	Transparent (CL)	30	333-31203
TF34-18/6	18.0	6.0	1.00	30 m	Transparent (CL)	30	333-31803
TF34-24/8	24.0	8.0	1.20	30 m	Transparent (CL)	30	333-32403
TF34-40/13	40.0	13.0	1.25	30 m	Transparent (CL)	30	333-34003

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

#### Recommended Tools

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H6100

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



### Heat shrinkable tubing 2:1 - Flame retardant

#### TR27

TR27 is used in applications where toxic emissions evolved in a fire must be minimised, e.g. for heavily populated buildings or safety sensitive areas like tunnels, hospitals, schools, theatres, mass transit vehicles and computer centres.

#### Features and benefits

- Thin wall, flexible polyolefin tubing
- Optional available with adhesive or as thick wall version (SR27)
- Halogen free and excellent flame-retardant properties
- Meets various industrial standards

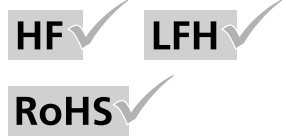


TR27 is ideal for safety sensitive areas.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	2:1
<b>Operating Temperature</b>	-40 °C to +105 °C
<b>Min. Shrink Temperature</b>	+115 °C
<b>Longitudinal Change After Shrinkage</b>	+5%/-10% max.
<b>Dielectric Strength</b>	15 kV/mm
<b>Flammability</b>	Limited Fire Hazard, halogen free, low generation of toxic gases and corrosive acid, low smoke generation



Heat Shrinkable Tubing 2:1



TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TR27-3.2/1.6	3.2	1/8 "	1.6	0.51	150 m	Black (BK)	30	315-50320
TR27-4.8/2.4	4.8	3/16 "	2.4	0.51	60 m	Black (BK)	30	315-50480
TR27-6.4/3.2	6.4	1/4 "	3.2	0.64	60 m	Black (BK)	30	315-50640
TR27-9.5/4.8	9.5	3/8 "	4.8	0.64	60 m	Black (BK)	30	315-50950
TR27-12.7/6.4	12.7	1/2 "	6.4	0.64	60 m	Black (BK)	30	315-51270
TR27-19.1/9.5	19.1	3/4 "	9.5	0.76	60 m	Black (BK)	30	315-51900
TR27-25.4/12.7	25.4	1 "	12.7	0.51	60 m	Black (BK)	30	315-52540
TR27-38.1/19.1	38.1	1-1/2 "	19.1	1.02	60 m	Black (BK)	30	315-53810
TR27-50.8/25.4	50.8	2 "	25.4	1.14	60 m	Black (BK)	30	315-55100

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

Recommended Tools
30
H6100

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

**EN 45545-2**

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





### Heat shrinkable tubing 3:1 - Flame retardant

#### TA37 – thin wall adhesive lined

TA37 shrink tubing has a low smoke index and excellent flame retardant properties to meet strict fire security standards in electrical insulation.

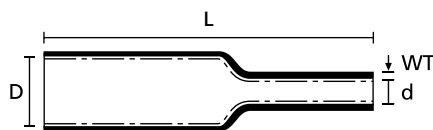
#### Features and benefits

- Thin wall adhesive lined heat shrink tubing
- Halogen free
- Flame retardant
- Combination of these three (halogen free, adhesive lined and flame retardant) product properties is unique



TA37 - Halogenfree and self-extinguishing 3:1 Thin Dual Wall Heat Shrink Tubing.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	3:1
<b>Operating Temperature</b>	-40 °C to +105 °C
<b>Min. Shrink Temperature</b>	+120 °C
<b>Softening Point Adhesive</b>	+85 °C
<b>Longitudinal Change After Shrinkage</b>	+3%/-15%
<b>Dielectric Strength</b>	19.7 kV/mm
<b>Flammability</b>	self-extinguishing, low smoke generation, low generation of toxic gases and corrosive acid



Heat Shrinkable Tubing 3:1 with adhesive



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
TA37 3-1	3.2	1.0	0.95	1.2 m	Black (BK)	30	315-13000
TA37 4.5-1.5	4.8	1.5	1.10	1.2 m	Black (BK)	30	315-13001
TA37 6-2	6.4	2.0	1.20	1.2 m	Black (BK)	30	315-13002
TA37 9-3	9.5	3.0	1.30	1.2 m	Black (BK)	30	315-13003
TA37 12-4	12.7	4.0	1.40	1.2 m	Black (BK)	30	315-13004
TA37 19-6	19.1	6.0	2.20	1.2 m	Black (BK)	30	315-13005
TA37 24-8	24.0	8.0	2.50	1.2 m	Black (BK)	30	315-13006
TA37 40-13	40.0	13.0	2.50	1.2 m	Black (BK)	30	315-13007
TA37 50-19	50.0	19.0	4.00	1.2 m	Black (BK)	30	315-13008
TA37 75-25	75.0	25.0	3.00	1.2 m	Black (BK)	30	315-13009
TA37 120-45	120.0	45.0	4.00	1.2 m	Black (BK)	30	315-13011

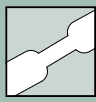
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Recommended Tools
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H6100

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

**EN 45545-2**

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



### 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.

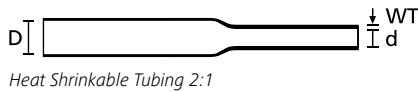
#### Features and benefits

- 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.

<b>MATERIAL</b>	Fluoropolymer, cross-linked (FPMX)
<b>Shrink Ratio</b>	2:1
<b>Operating Temperature</b>	-55 °C to +200 °C
<b>Min. Shrink Temperature</b>	+170 °C
<b>Longitudinal Change After Shrinkage</b>	-10% max.
<b>Dielectric Strength</b>	8 kV/mm
<b>Flammability</b>	self-extinguishing
<b>Insulation Class</b>	C (VDE 0530)



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Tools	Article-No.
VITON®-E-3.2/1.6	3.2	1.6	0.70	50 m	Black (BK)	VG 95343 T05 E 001 A	30	330-00320
VITON®-E-4.8/2.4	4.8	2.4	0.80	50 m	Black (BK)	VG 95343 T05 E 002 A	30	330-00480
VITON®-E-6.4/3.2	6.4	3.2	0.90	50 m	Black (BK)	VG 95343 T05 E 003 A	30	330-00640
VITON®-E-9.5/4.8	9.5	4.8	1.00	25 m	Black (BK)	VG 95343 T05 E 004 A	30	330-00950
VITON®-E-12.7/6.4	12.7	6.4	1.20	25 m	Black (BK)	VG 95343 T05 E 005 A	30	330-01270
VITON®-E-19.0/9.5	19.0	9.5	1.40	25 m	Black (BK)	VG 95343 T05 E 006 A	30	330-01900
VITON®-E-25.4/12.7	25.4	12.7	1.80	25 m	Black (BK)	VG 95343 T05 E 007 A	30	330-02540
VITON®-E-38.0/19.0	38.0	19.0	2.40	15 m	Black (BK)	VG 95343 T05 E 008 A	30	330-03810
VITON®-E-50.8/25.4	50.8	25.4	2.80	15 m	Black (BK)	VG 95343 T05 E 009 A	30	330-05080

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

#### Recommended Tools

30  
H6100

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



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

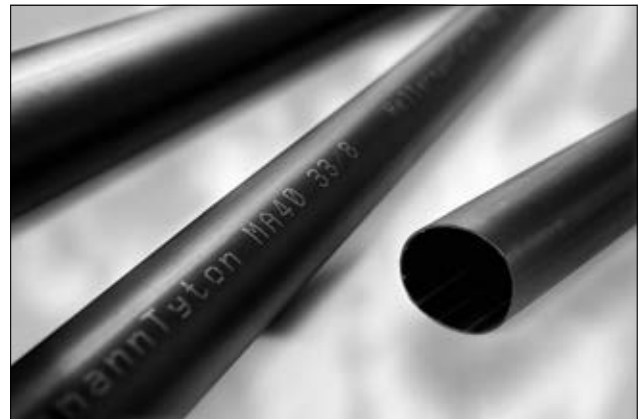
### Heat shrinkable tubing 4:1 - Flame retardant

#### MA40 - medium wall adhesive lined

Designed for low voltage cable joints and terminations in shipbuilding. Insulates and protects against moisture.

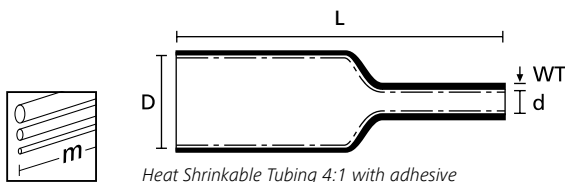
#### Features and benefits

- Medium wall adhesive lined shrink tubing for low voltage power cables
- Designed for shipbuilding, Germanische Lloyd approved
- Flame retarded
- UV and weather resistant
- Excellent mechanical performance



MA40 medium wall, adhesive lined and flame retarded tubing for shipbuilding applications.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	up to 4:1
<b>Operating Temperature</b>	-55 °C to +110 °C
<b>Min. Shrink Temperature</b>	+120 °C
<b>Softening Point Adhesive</b>	+85 °C
<b>Longitudinal Change After Shrinkage</b>	-10% max.
<b>Dielectric Strength</b>	15 kV/mm
<b>Flammability</b>	self-extinguishing



LFH ✓

RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
MA40-8/2	8.0	2.0	1.70	1.0 m	Black (BK)	30;32	323-00100
MA40-12/3	12.0	3.0	2.00	1.0 m	Black (BK)	30;32	323-00101
MA40-16/5	16.0	5.0	2.00	1.0 m	Black (BK)	30;32	323-00103
MA40-22/6	22.0	6.0	2.40	1.0 m	Black (BK)	30;32	323-00104
MA40-33/8	33.0	8.0	2.50	1.0 m	Black (BK)	30;32	323-00105
MA40-40/12	40.0	12.0	2.60	1.0 m	Black (BK)	30;32	323-00106
MA40-55/16	55.0	16.0	2.70	1.0 m	Black (BK)	30;32	323-00107

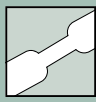
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

Recommended Tools	
30	32
H6100	CHG900

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



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



### Heat shrinkable cable repair sleeves

#### RMS

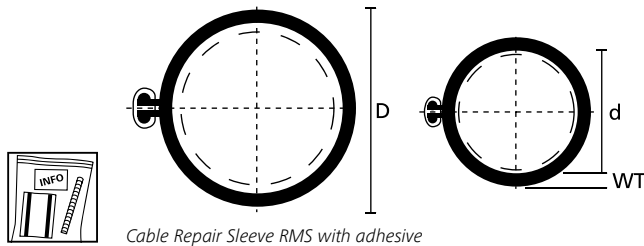
RMS wrap-around sleeves are closed with a steel channel. The sleeve is adhesive lined and will effectively seal the cable after shrinkage. RMS sleeves provide fast, watertight and reliable insulation.

#### Features and benefits

- Fast, moisture proof and permanent repair of cable jackets
- Only 6 sizes for a wide range of cable diameters: from 15 mm up to 160 mm
- Available in 4 standard lengths and also in custom lengths on request
- Each RMS kit is ready for use and comes with instruction sheet, abrasive strip and cleaning sachet
- The metal closure is made of 316 stainless steel for high overall corrosion resistance
- Weather resistant and halogen free
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated



RMS wrap-around sleeves for rapid and secure cable repair.



Cable Repair Sleeve RMS with adhesive

<b>MATERIAL</b>	Polyolefin, chemically cross-linked (PO-X)
<b>Shrink Ratio</b>	up to 4.5:1
<b>Operating Temperature</b>	-40 °C to +120 °C
<b>Min. Shrink Temperature</b>	+110 °C
<b>Softening Point Adhesive</b>	+105 °C
<b>Longitudinal Change After Shrinkage</b>	-10% max.
<b>Dielectric Strength</b>	30 kV/mm
<b>Flammability</b>	not flame-retardant



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Suitable for Cable Ø from/to	Length (L)	Colour	Tools	Article-No.
<b>RMS 43-10</b>	43.0	10.0	2.30	15 - 35	250.0	Black (BK)	32	450-20000
	43.0	10.0	2.30	15 - 35	500.0	Black (BK)	32	450-20001
	43.0	10.0	2.30	15 - 35	750.0	Black (BK)	32	450-20004
	43.0	10.0	2.30	15 - 35	1,000.0	Black (BK)	32	450-20002
<b>RMS 52-15</b>	52.0	15.0	2.30	20 - 45	250.0	Black (BK)	32	450-20010
	52.0	15.0	2.30	20 - 45	500.0	Black (BK)	32	450-20011
	52.0	15.0	2.30	20 - 45	750.0	Black (BK)	32	450-20014
	52.0	15.0	2.30	20 - 45	1,000.0	Black (BK)	32	450-20012
<b>RMS 76-22</b>	76.0	22.0	2.50	28 - 65	500.0	Black (BK)	32	450-20021
	76.0	22.0	2.50	28 - 65	750.0	Black (BK)	32	450-20024
	76.0	22.0	2.50	28 - 65	1,000.0	Black (BK)	32	450-20022
<b>RMS 100-30</b>	100.0	30.0	2.54	35 - 85	500.0	Black (BK)	32	450-20030
	100.0	30.0	2.54	35 - 85	1,000.0	Black (BK)	32	450-20031
<b>RMS 139-38</b>	139.0	38.0	2.77	45 - 120	1,000.0	Black (BK)	32	450-20041
<b>RMS 185-55</b>	185.0	55.0	2.74	65 - 160	1,000.0	Black (BK)	32	450-20050

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

Recommended Tools
32
CHG900

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

### Heat shrinkable tubing 4:1 - Flame retardant

#### HA40 - thick wall adhesive lined

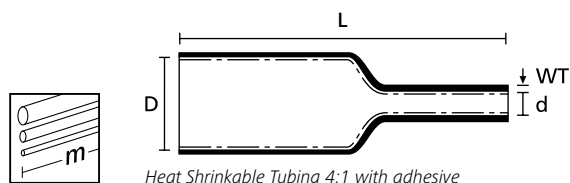
Designed for low voltage cable joints and terminations in shipbuilding. Insulates and protects against moisture.

#### Features and benefits

- Thick wall adhesive lined shrink tubing for low voltage power cables
- Designed for shipbuilding, Germanische Lloyd approved
- Flame retarded
- UV and weather resistant
- Excellent mechanical performance



HA40 thick wall, adhesive lined and flame retarded tubing for shipbuilding applications.



<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Shrink Ratio</b>	up to 4:1
<b>Operating Temperature</b>	-55 °C to +110 °C
<b>Min. Shrink Temperature</b>	+120 °C
<b>Softening Point Adhesive</b>	+85 °C
<b>Longitudinal Change After Shrinkage</b>	-10% max.
<b>Dielectric Strength</b>	15 kV/mm
<b>Flammability</b>	self-extinguishing

LFH ✓

RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
HA40-9/3	9.0	3.0	2.00	1.0 m	Black (BK)	32	321-00100
HA40-13/4	13.0	4.0	2.20	1.0 m	Black (BK)	32	321-00101
HA40-22/6	22.0	6.0	2.70	1.0 m	Black (BK)	32	321-00102
HA40-33/8	33.0	8.0	3.20	1.0 m	Black (BK)	32	321-00103
HA40-40/12	40.0	12.0	4.10	1.0 m	Black (BK)	32	321-00104
HA40-55/16	55.0	16.0	4.10	1.0 m	Black (BK)	32	321-00105
HA40-75/22	75.0	22.0	4.10	1.0 m	Black (BK)	32	321-00106
HA40-92/25	92.0	25.0	4.20	1.0 m	Black (BK)	32	321-00107

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

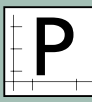
#### Recommended Tools

32  
CHG900

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

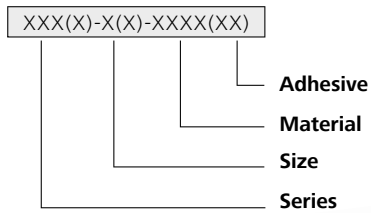


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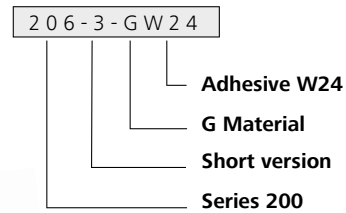


## Order Example

Type:



Example:

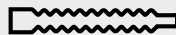


Other product styles are available. Please refer to Moulded Shapes catalogue.

### Low Profile Boots Product Overview

#### Convolute Boots

Helashrink 313C Series,  
with adapter lip



#### Right Angle Boots

Helashrink 333F Series,  
with adapter lip, 90° angle



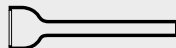
#### Shim Boots

Helashrink 313E Series,  
without adapter lip



#### Straight Boots

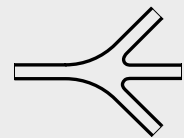
Helashrink 313F Series,  
with adapter lip



### Low Profile Boots Product Overview

#### Transition Boots

Helashrink 573H Series,  
1 to 3 cables



#### Transition Boots

Helashrink 412H Series,  
side breakout



#### Transition Boots

Helashrink 492H Series,  
1 to 2 cables





**Bulbous Boots Product Overview**

**Bottle Shapes**

Helashrink 100 Series, without rib



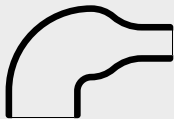
**Bottle Shapes**

Helashrink 100 Series, with rib, MIL



**Right-Angle Shapes**

Helashrink 1100 Series, without rib



**Right-Angle Shapes**

Helashrink 1100 Series, with rib, VG



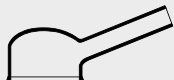
**Right-Angle Shapes**

Helashrink 1100 Series, with rib, MIL



**Right-Angle Shapes**

Helashrink 1100 Series, with rib, low profile, high ratio, VG



**Right-Angle Shapes**

Helashrink 1100 Series, with rib, low profile, VG style/MIL style



**T-Shapes**

Helashrink 1200 Series, VG



**T-Shapes**

Helashrink 1200 Series, Offset, VG



**Long Outlet Shape**

Helashrink 130 Series, with rib, low profile, VG



**Angled T-Shapes**

Helashrink 1300 Series, 30° & 45° angle, VG



**Bottle Shapes**

Helashrink 150 Series, with rib, VG



**Bulbous Boots Product Overview**

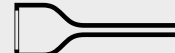
**Low Voltage**

Helashrink 1600 Series



**Bottle Shapes**

Helashrink 170 Series, with rib, VG



**Bottle Shapes**

Helashrink 190 Series, with external ribs, VG



**2-Way Outlet Shapes**

Helashrink 200 Series, low profile



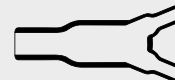
**2-Way Outlet Shapes**

Helashrink 200 Series, in line, low voltage



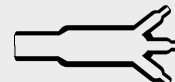
**2-Way Outlet Shapes**

Helashrink 200 Series, VG



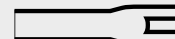
**3-Way Outlet Shapes**

Helashrink 300 Series, VG



**4-Way Outlet Shapes**

Helashrink 400 Series, in line, low voltage



**4-Way Outlet Shapes**

Helashrink 400 Series, VG



**5-Way Outlet Shapes**

Helashrink 500 Series, in line, low voltage



**Low Voltage**

Helashrink PEC Series, pinched





### Two-Component Adhesive for Heat Shrinkable Tubing and Shapes

**V9500**

#### Features and benefits

- High performance, two-part epoxy adhesive
- Very resistant to most solvents and fuels, even at elevated temperatures
- Two different packages available
- V9500 available in 10g sachets for manual mixing
- Processing set: emery paper, small mixing bowl and wooden spatula
- High performance bonding
- Meets military requirements for heat shrinkable components for harnesses



Two-component epoxy adhesive V9500.



The V9500 applicator gun guarantees the clean and precise coating of special fittings.

<b>MATERIAL</b>	Epoxy resins (EP)
<b>Colour</b>	Black (BK)
<b>Curing Temperature</b>	+135 °C
<b>Curing Time</b>	24 hours at +25 °C, 2 hours at +85 °C
<b>Operating Temperature</b>	-75 °C to +150 °C



TYPE	Description	Designation as per VG-Norm	Tools	Article-No.
<b>V9500 Epoxy Kit</b>	5 x 10g sachets (50g), 5 x mixing pots, 5 x mixing sticks, 5 x emery papers	VG 95343 T15 A001 A	30	627-95000
	1 x dual cartridge, 5 x mixing pots, 5 x mixing sticks, 5 x emery papers	VG 95343 T15 A 002 B	30	627-95001
<b>V9500 Epoxy Cartridge</b>	Two-component adhesive cartridge	VG 95343 T15 D 002 B	30	627-95002
<b>V9500 Applicator Gun</b>	Applicator gun	VG 95343 T15 DA	-	627-95003
<b>V9500 Applicator Nozzle</b>	Mixing nozzle	VG 95343 T15 MA	-	627-95004

All dimensions in mm. Subject to technical changes.

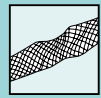
Recommended Tools
30
H6100



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

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





### Standard polyester braided sleeving

#### Helagain HEGP

Helagain HEGP braided sleeving provides abrasion protection in the automotive industry, in machine building, in panel building and in electrical appliances.

#### Features and benefits

- Made of sturdy polyester
- Highly flexible
- High abrasion resistance
- Very high surface coverage



Helagain HEGP braided sleeving.

<b>MATERIAL</b>	Polyester (PET)
<b>Operating Temperature</b>	-50 °C to +150 °C
<b>Melting Point</b>	+250 °C
<b>Flammability</b>	UL 94 V2, FMVSS 302
<b>EN 45545-2 Classification</b>	R22 HL3, R23 HL3



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGP03	1	5	Black (BK)	200 m	45	170-10300
HEGP04	2	7	Black (BK)	200 m	45	170-10400
HEGP05	3	9	Black (BK)	200 m	45	170-10500
HEGP06	4	11	Black (BK)	100 m	45	170-10600
HEGP08	5	12	Black (BK)	100 m	45	170-10800
HEGP10	7	15	Black (BK)	100 m	45	170-11000
HEGP12	8	17	Black (BK)	100 m	45	170-11200
HEGP15	10	20	Black (BK)	100 m	45	170-11500
HEGP20	14	26	Black (BK)	50 m	45	170-12000
HEGP25	18	34	Black (BK)	50 m	45	170-12500
HEGP30	20	40	Black (BK)	50 m	45	170-13000
HEGP40	30	50	Black (BK)	50 m	45	170-14000
HEGP50	40	66	Black (BK)	50 m	45	170-15000

All dimensions in mm. Subject to technical changes.

Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

#### Recommended Tools

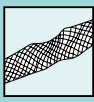
45  
HSG0

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

**EN 45545-2**

**ECE R-118**

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



### High-expansion polyester braided sleeving

#### Helagain HEGPX

Helagain HEGPX is used whenever a higher expansion rate is required. HEGPX is particularly suitable for use in the automotive industry, panel building and in electrical appliances.

#### Features and benefits

- Made of sturdy polyester
- Highly flexible
- High rate of expansion
- Easy to apply over irregular shapes
- Good abrasion resistance



HEGPX - Expandable abrasion protection sleeve.

<b>MATERIAL</b>	Polyester (PET)
<b>Operating Temperature</b>	-50 °C to +150 °C
<b>Melting Point</b>	+250 °C
<b>Flammability</b>	UL 94 V2, FMVSS 302
<b>EN 45545-2 Classification</b>	R22 HL2, R23 HL2



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPX03	2	6	Black (BK)	200 m	45	170-00030
HEGPX06	3	9	Black (BK)	200 m	45	170-00060
HEGPX09	5	16	Black (BK)	100 m	45	170-00090
HEGPX12	6	19	Black (BK)	100 m	45	170-00120
HEGPX20	12	32	Black (BK)	100 m	45	170-00200
HEGPX30	19	45	Black (BK)	50 m	45	170-00300
HEGPX40	32	70	Black (BK)	50 m	45	170-00400

All dimensions in mm. Subject to technical changes.  
Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

#### Recommended Tools

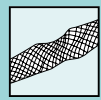
45  
HSG0

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

EN 45545-2



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



### Flame-retardant polyester braided sleeving

#### Helagain HEGPETFR

This sleeve is particularly designed for abrasion protection of bundles of electrical cables. Helagain HEGPETFR is therefore particularly recommended in applications such as public transport, aircraft industry, telecommunications, underground cables, etc.

#### Features and benefits

- Made of sturdy polyester
- Self-extinguishing
- Highly flexible
- Easy to apply over irregular shapes
- Good abrasion resistance



Helagain HEGPETFR braided sleeving.

<b>MATERIAL</b>	Polyester (PET)
<b>Operating Temperature</b>	-50 °C to +150 °C
<b>Melting Point</b>	+250 °C
<b>Flammability</b>	FMVSS 302, Type B, UL 1441 VW-1
<b>EN 45545-2 Classification</b>	R22 HL2, R23 HL3



TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPETFR03	2	5	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81000
HEGPETFR04	3	7	Black with Grey Identification Yarn (BKIDGY)	200 m	45	170-81001
HEGPETFR05	4	9	Black with Grey Identification Yarn (BKIDGY)	200 m	45	170-81002
HEGPETFR06	5	11	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81003
HEGPETFR08	7	13	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81004
HEGPETFR10	9	15	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81005
HEGPETFR12	11	17	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81006
HEGPETFR15	13	20	Black with Grey Identification Yarn (BKIDGY)	100 m	45	170-81007
HEGPETFR20	18	25	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81008
HEGPETFR25	22	30	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81009
HEGPETFR30	27	40	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81010
HEGPETFR40	35	50	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81011
HEGPETFR50	45	60	Black with Grey Identification Yarn (BKIDGY)	50 m	45	170-81012

All dimensions in mm. Subject to technical changes.

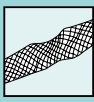
Recommended Tools
45
HSG0

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

**EN 45545-2**



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



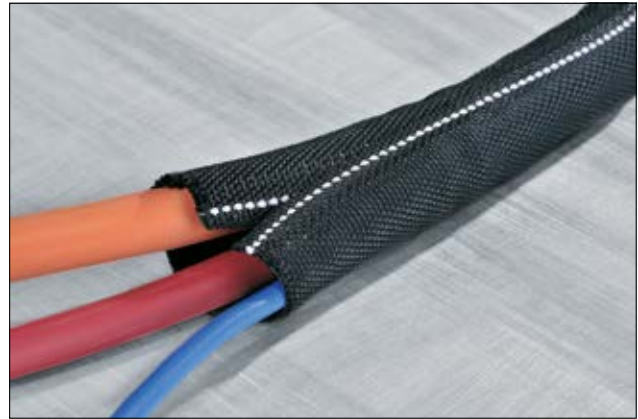
### Self-closing, flame-retardant polyester sleeving

#### Helagaine Twist-In-FR

Helagaine Twist-In-FR is used wherever fire protection is essential, such as in the railway, aerospace and shipbuilding industries.

#### Features and benefits

- Self-closing sleeve made from polyester
- Optimal fire protection
- Easy and quick installation and removal
- Ideal for retro-fitting
- Allows access to bundle for assembly, inspection and maintenance



Helagaine Twist-In-FR is used wherever fire safety is important.

<b>MATERIAL</b>	Polyester (PET)
<b>Operating Temperature</b>	-50 °C to +125 °C
<b>Melting Point</b>	+240 °C
<b>Flammability</b>	FMVSS 302, self-extinguishing
<b>EN 45545-2 Classification</b>	R22 HL3, R23 HL3



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

Recommended Tools
45
HSG0

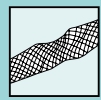
For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

**ECE R-118**



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



### Rodent repellent self-closing sleeving

#### Helagain Twist-In-RR

Helagain Twist-In-RR is used to bundle and protect cables and hoses against rodents in demanding areas such as automotive, railways, telecoms, underground, sewage system.

#### Features and benefits

- Self-wrapping woven sleeving made of glass-fibre and PET polyester
- Rodent repellent
- Provides very good protection against abrasion, UV, vibrations and impacts
- Quick and easy installation and removal, ideal for retro-fitting
- Lightweight
- Very good resistance to acids and solvents
- Very good resistance to UV and weathering
- Very good resistance to micro-organisms



Rodent repellent self-closing sleeving in application with fibre optic cable.

<b>MATERIAL</b>	Glass-fibre (GF), Polyester (PET)
<b>Operating Temperature</b>	-70 °C to +125 °C
<b>Melting Point</b>	+225 °C
<b>Flammability</b>	self-extinguishing, FMVSS 302
<b>EN 45545-2 Classification</b>	R22 HL3, R23 HL3

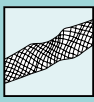


TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
<b>Twist-In-RR 13</b>	10	13	White (WH), Black (BK)	50 m	170-01161
<b>Twist-In RR 19</b>	16	19	White (WH), Black (BK)	25 m	170-01162
<b>Twist-In RR 29</b>	25	29	White (WH), Black (BK)	15 m	170-01163
<b>Twist-In RR 32</b>	29	32	White (WH), Black (BK)	15 m	170-01164

All dimensions in mm. Subject to technical changes.

**EN 45545-2**

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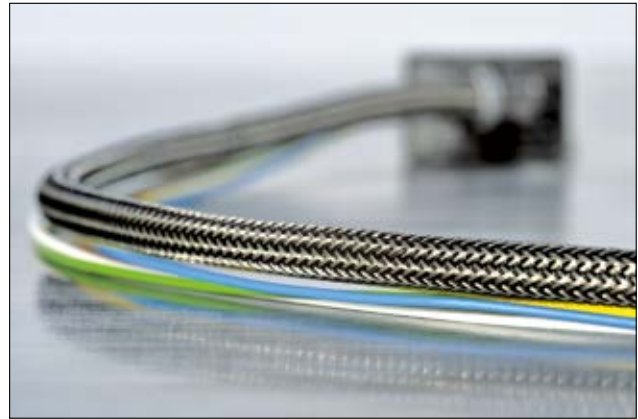
### Electromagnetic protection braided sleeving

#### Helagaine HEGEMIP

Helagaine HEGEMIP braided sleeving is used for highly sensitive electronics, such as in machines, military equipment and automobiles.

#### Features and benefits

- Excellent electromagnetic protection
- Extremely flexible, expandable and easy to apply
- No kinks or ruptures even when bent at sharp angles
- Superior abrasion protection
- Particularly suitable for applications with restricted space or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Fulfils the requirements of IEC CISPR25 for radio disturbances in vehicles, boats and engines



HEGEMIP braided sleeving: reliable protection from electromagnetic radiation.

<b>MATERIAL</b>	Polyester, halogen free (PET), Tin-plated copper (SNCU)
<b>Operating Temperature</b>	-40 °C to +150 °C
<b>EMI requirements</b>	10 kHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
<b>Flammability</b>	UL 94 V2, FMVSS 302



TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Weight	Reel Length	Article-No.
HEGEMIP04	4.0	4.0	6.0	Metal (ML), Black (BK)	22 g/m	100 m	173-00400
HEGEMIP06	6.0	5.0	10.0	Metal (ML), Black (BK)	29 g/m	100 m	173-00600
HEGEMIP08	8.0	8.0	11.0	Metal (ML), Black (BK)	36 g/m	100 m	173-00800
HEGEMIP10	10.0	8.0	13.0	Metal (ML), Black (BK)	44 g/m	50 m	173-01000
HEGEMIP12	12.0	10.0	15.0	Metal (ML), Black (BK)	48 g/m	50 m	173-01200
HEGEMIP14	14.0	12.0	18.0	Metal (ML), Black (BK)	58 g/m	100 m	173-01400
HEGEMIP16	16.0	14.0	20.0	Metal (ML), Black (BK)	73 g/m	100 m	173-01600
HEGEMIP18	18.0	16.0	22.0	Metal (ML), Black (BK)	79 g/m	50 m	173-01800
HEGEMIP20	20.0	18.0	25.0	Metal (ML), Black (BK)	100 g/m	50 m	173-02000

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



### Electromagnetic protection braided sleeving for defence applications

#### Helagaine HEGEMIP-VG

Helagaine HEGEMIP-VG provides electromagnetic protection for the defence industry.

#### Features and benefits

- Excellent electromagnetic protection
- Very flexible, expandable and easy to apply
- Especially suitable for applications in tight areas or requiring movement
- Inner disposable tube protects sleeve from deformation and allows for easy insertion of cables
- Very good abrasion resistance
- Approved to military norm VG 96936-10 / Type A



HEGEMIP-VG braided sleeving with VG approval for defence applications.

<b>MATERIAL</b>	Tin-plated copper (SNCU)
<b>Operating Temperature</b>	-65 °C to +150 °C
<b>Flammability</b>	UL 94 V2, FMVSS 302

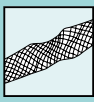


TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Weight	Reel Length	Article-No.
HEGEMIP-VG03	3	3.5	5.0	Metal (ML)	19 g/m	500 m	173-00200
HEGEMIP-VG04	4	4.5	7.0	Metal (ML)	30 g/m	500 m	173-00201
HEGEMIP-VG06	6	5.5	8.5	Metal (ML)	37 g/m	500 m	173-00202
HEGEMIP-VG07.5	7.5	7.5	13.5	Metal (ML)	71 g/m	500 m	173-00203
HEGEMIP-VG10	10	13.0	17.5	Metal (ML)	96 g/m	250 m	173-00204
HEGEMIP-VG12.5	12.5	15.0	19.5	Metal (ML)	100 g/m	200 m	173-00205
HEGEMIP-VG20	20	19.0	30.0	Metal (ML)	265 g/m	100 m	173-00206

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



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### Electromagnetic protection braided sleeving for hybrid automobiles

#### Helagain HEGEMIP-HY

Helagain HEGEMIP-HY provides electromagnetic protection in hybrid automobiles.

#### Features and benefits

- Excellent electromagnetic protection
- Extremely flexible, expandable and easy to apply
- No kinks or ruptures even when bent at sharp angles
- Superior abrasion protection
- Special copper alloy for enhanced protection against salt spray
- Particularly suitable for applications with restricted space or requiring movement
- Fulfils the requirements of IEC CISPR25 for radio disturbances in vehicles, boats and engines



HEGEMIP-HY braided sleeving: EMI protection for hybrid automobiles.

<b>MATERIAL</b>	Polyester (PET), Tin-plated copper (SNCU)
<b>Operating Temperature</b>	-40 °C to +150 °C
<b>EMI requirements</b>	10 kHz to 1 GHz according to CISPR25 (DIN VDE 0879-2)
<b>Flammability</b>	UL 94 V2, FMVSS 302



TYPE	Ø (D)	Bundle Ø min.	Bundle Ø max.	Colour	Weight	Reel Length	Article-No.
HEGEMIP-HY20	20	19	27	Silver (SR), Orange (OG)	72 g/m	50 m	173-02001
HEGEMIP-HY30	30	25	35	Silver (SR), Orange (OG)	101 g/m	50 m	173-03000
HEGEMIP-HY35	35	30	40	Silver (SR), Orange (OG)	120 g/m	50 m	173-03501
HEGEMIP-HY40	40	30	50	Silver (SR), Orange (OG)	180 g/m	50 m	173-04000
HEGEMIP-HY50	50	40	60	Silver (SR), Orange (OG)	204 g/m	50 m	173-05000

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





### Edge protection for cut-out sections

#### Flexiform G51P PE grommet strip

Flexiform edge protection is used to protect cables and wires routed through sharp-edged cut-out sections.

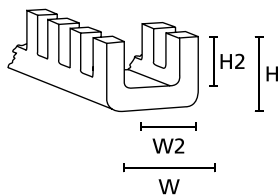
#### Features and benefits

- Very flexible
- Easily and securely applied without adhesives
- Provides effective, orderly-looking protection
- Flexiform G51P made of polyethylene offers general purpose edge protection
- Flexiform G51N made of PA6 offers very good abrasion resistance
- Flexiform G51T made of PTFE offers excellent resistance to high temperatures and most chemicals



Optimal protection of cables and wires at panel edges.

<b>MATERIAL</b>	Polyethylene (PE)
<b>Operating Temperature</b>	-30 °C to +80 °C
<b>Flammability</b>	UL 94 HB



Flexiform edge protection



TYPE	Panel Thickness	Width (W)	Width (W2)	Height (H)	Height (H2)	Material	Colour	Pack Cont.	Article-No.
G51PAA	0.4 - 0.9	2.3	0.9	2.7	1.8	PE	Natural (NA)	25 m	251-10009
G51PA	0.4 - 1.3	3.9	1.5	4.3	2.7	PE	Natural (NA)	25 m	251-10109
G51PB	1.3 - 2.1	4.6	2.4	4.3	2.7	PE	Natural (NA)	25 m	251-10209
G51PC	2.1 - 3.3	5.7	3.5	4.3	2.7	PE	Natural (NA)	25 m	251-10309
G51PD	3.3 - 4.8	8.4	5.1	6.2	4.3	PE	Natural (NA)	25 m	251-10409
G51PE	4.8 - 6.5	9.9	6.7	6.4	4.5	PE	Natural (NA)	25 m	251-10509
G51PF	6.5 - 8.1	11.4	8.3	6.8	4.8	PE	Natural (NA)	25 m	251-10609
G51PG	8.1 - 9.7	13.2	10.1	6.8	4.8	PE	Natural (NA)	25 m	251-10709
G51PH	9.7 - 12.9	16.4	13.2	6.8	4.8	PE	Natural (NA)	25 m	251-10809

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.



### Edge protection for cut-out sections

#### Flexiform G51N PA6 grommet strip

Flexiform grommet strips are used to protect cables and wires routed through sharp-edged cutout sections.

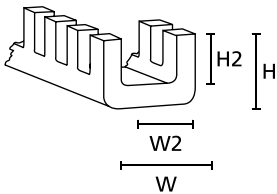
#### Features and benefits

- 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.

<b>MATERIAL</b>	Polyamide 6 (PA6)
<b>Operating Temperature</b>	-60 °C to +95 °C
<b>Flammability</b>	UL 94 HB



Flexiform edge protection

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



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### HelaTape

HellermannTyton offers a comprehensive range of vinyl, rubber and cloth tapes for bundling, insulating, fixing, sealing and marking applications around all kinds of electrical applications. Vinyl electrical tapes are designed for low voltage applications and available in different dimensions and colours. Rubber tapes are suitable for sealing and insulating cables and splices in low, medium and high voltage applications. HelaTape cloth tapes are extremely strong and ideal for identification, fixing, bundling and repair purposes. HelaTape Protect is used to build professional cable and wiring harnesses.

### Vinyl Electrical Tapes – Commercial Grade Vinyl Electrical Tape

#### HelaTape Flex 15

Primary electrical insulation for all wire and cable splices up to 1 kV.  
 Protective jacketing for low, medium, and high voltage splices.  
 Wrapping of wire harnesses and cables.  
 Used for indoor and outdoor applications.

#### Features and benefits

- Vinyl electrical tape in many different colours
- Used for insulation, protection, fixing, maintenance, colour coding and more
- Good resistance to abrasion, sunlight, moisture, chemicals and varying weather conditions
- Highly flexible with outstanding adhesion performance
- Harnessing of wires and cables
- Suitable for mechanical and electrical applications up to 1 kV
- VDE approved according to IEC 60454-3-1-6/F-PVCP/90
- Flame retardant according to IEC 60454-2



HelaTape Flex 15 is a commercial grade, weather resistant vinyl tape.

<b>MATERIAL</b>	Polyvinylchloride (PVC)
<b>Dielectric Strength</b>	45 kV/mm
<b>Adhesion to Steel</b>	2.2 N/10 mm
<b>Adhesion to Backing</b>	2.0 N/10 mm
<b>Elongation at break</b>	200 %
<b>Breaking Strength</b>	28 N/10 mm
<b>Operating Temperature</b>	-10 °C to +90 °C



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-FLEX15-15x10	0.15	15.0	10.0 m	Black (BK)	710-00104
	0.15	15.0	10.0 m	Blue (BU)	710-00100
	0.15	15.0	10.0 m	Brown (BN)	710-00107
	0.15	15.0	10.0 m	Green (GN)	710-00103
	0.15	15.0	10.0 m	Green-Yellow (GNYE)	710-00106
	0.15	15.0	10.0 m	Grey (GY)	710-00108
	0.15	15.0	10.0 m	Orange (OG)	710-00110
	0.15	15.0	10.0 m	Red (RD)	710-00101
	0.15	15.0	10.0 m	Red (RD), Grey (GY), Yellow (YE), Green (GN), Blue (BU), Orange (OG), White (WH), Brown (BN), Black (BK), Green-Yellow (GNYE)	710-00146
	0.15	15.0	10.0 m	Transparent (CL)	710-00147
	0.15	15.0	10.0 m	Violet (VT)	710-00109
	0.15	15.0	10.0 m	White (WH)	710-00105
	0.15	15.0	10.0 m	Yellow (YE)	710-00102

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



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### Vinyl Electrical Tapes – Commercial Grade Vinyl Electrical Tape

#### HTape Flex 15

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.	
<b>HTAPE-FLEX15-15x25</b>	0.15	15.0	25.0 m	Black (BK)	710-00115	
<b>HTAPE-FLEX15-19x20</b>	0.15	19.0	20.0 m	Black (BK)	710-00155	
	0.15	19.0	20.0 m	Blue (BU)	710-00151	
	0.15	19.0	20.0 m	Brown (BN)	710-00158	
	0.15	19.0	20.0 m	Green (GN)	710-00154	
	0.15	19.0	20.0 m	Green-Yellow (GNYE)	710-00157	
	0.15	19.0	20.0 m	Grey (GY)	710-00159	
	0.15	19.0	20.0 m	Red (RD)	710-00152	
	0.15	19.0	20.0 m	Transparent (CL)	710-00166	
	0.15	19.0	20.0 m	Violet (VT)	710-00160	
	0.15	19.0	20.0 m	White (WH)	710-00156	
<b>HTAPE-FLEX15-19x25</b>	0.15	19.0	25.0 m	Black (BK)	710-00126	
	<b>HTAPE-FLEX15-25x25</b>	0.15	25.0	25.0 m	Black (BK)	710-00137
		0.15	25.0	25.0 m	Blue (BU)	710-00133
		0.15	25.0	25.0 m	Brown (BN)	710-00140
		0.15	25.0	25.0 m	Green (GN)	710-00136
		0.15	25.0	25.0 m	Green-Yellow (GNYE)	710-00139
		0.15	25.0	25.0 m	Grey (GY)	710-00141
		0.15	25.0	25.0 m	Red (RD)	710-00134
		0.15	25.0	25.0 m	Violet (VT)	710-00142
		0.15	25.0	25.0 m	White (WH)	710-00138
0.15		25.0	25.0 m	Yellow (YE)	710-00135	

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



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### Self-amalgamating Tapes – Low Voltage Rubber Tape

#### Helatape Power 600

#### Features and benefits

- Self-amalgamating low voltage rubber tape
- Primary insulation at not more than 1 kV
- Easily suitable to irregular shapes and surfaces
- Compatible with all extruded dielectric cable insulations
- Weather resistant and flame retardant according to UL 510
- Excellent for repairing e.g. damaged cable sheaths against moisture ingress, where finishing with some layers of Helatape Flex will do the mechanical protection.



Helatape Power 600 is a self-amalgamating low voltage rubber tape.

<b>MATERIAL</b>	Natural rubber (NR)
<b>Operating Temperature</b>	-40 °C to +80 °C
<b>Intermittent Operating Temperature</b>	+95 °C
<b>Tensile Strength</b>	2 N/mm <sup>2</sup>
<b>Elongation at break</b>	300 %
<b>Dielectric Strength</b>	14 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER600-19x6.7	0.76	19.0	6.7 m	Black (BK)	711-10200
HTAPE-POWER600-38x6.7	0.76	38.0	6.7 m	Black (BK)	711-10201

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



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### Self-amalgamating Tapes – Electrical Insulation Mastic

#### Helatape Power 650

#### Features and benefits

- Self-amalgamating insulation compound for sealing and padding cable jackets up to 1 kV
- Easily moulded by hand to conform to irregular shapes even during low temperatures
- Permanently elastic and resistant to ageing
- Perfect adhesion to metal and all types of cable insulations and jackets
- Provides excellent moisture sealing
- Resistant to salt water, ozone, oil and corrosive chemicals
- Excellent for repairing e.g. damaged cable sheaths against moisture ingress, where finishing with some layers of Helatape Flex will do the mechanical protection



*Helatape Power self-amalgamating mastic is highly flexible.*

<b>MATERIAL</b>	Isobutene-Isoprene-Rubber (butyl rubber) (IIR)
<b>Operating Temperature</b>	-10 °C to +105 °C
<b>Intermittent Operating Temperature</b>	+130 °C
<b>Water Absorption</b>	0.1 %
<b>Volume Resistance</b>	10 <sup>15</sup> Ω cm
<b>Dielectric Strength</b>	19.7 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER650	3.20	38.0	1.5 m	Black (BK)	711-10300

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



### Self-amalgamating Tapes – Rubber Mastic Tape

#### Helatape Power 660 RM

#### Features and benefits

- Self-amalgamating rubber mastic tape
- EPR backing coated with a tacky, temperature-stable mastic adhesive
- Designed for electrical insulating and moisture sealing applications
- Can be used as cable jacket replacement
- Perfect adhesion and sealing for copper and aluminium wires
- Easily suitable to irregular shapes and surfaces
- Compatible with all extruded cable insulations
- UV, moisture, corrosion and chemical resistant
- Primary electrical insulation for bus bar connections rated up to 35 kV
- Excellent for repairing e.g. damaged cable sheaths against moisture ingress, where finishing with some layers of Helatape Flex will do the mechanical protection



*Helatape Power 660 is a very flexible rubber mastic sealing and padding tape.*

<b>MATERIAL</b>	Ethylene Propylene Rubber (EPR), Isobutene-Isoprene-Rubber (butyl rubber) (IIR)
<b>Operating Temperature</b>	-30 °C to +90 °C
<b>Intermittent Operating Temperature</b>	+130 °C
<b>Water Absorption</b>	0.1 %
<b>Tensile Strength</b>	1.5 N/mm <sup>2</sup>
<b>Dielectric Strength</b>	19.7 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER 660-RM	1.65	50.8	3.0 m	Black (BK)	711-00307

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



### Self-amalgamating Tapes – Vinyl Mastic Tape

#### HelaTape Power 670 VM

#### Features and benefits

- Easy to apply vinyl mastic tape
- Self-adhesive application - without stretching
- Mastic layer is very sticky and provides excellent moisture sealing
- Vinyl top layer provides additional protection
- Performs continuously. Even at low temperatures
- Primary insulation up to 1 kV
- Applicable to all extruded cable insulations
- UV and weather resistant



HelaTape Power 670 provides additional vinyl film protection to the mastic compound.

<b>MATERIAL</b>	Polyvinylchloride (PVC), Isobutene-Isoprene-Rubber (butyl rubber) (IIR)
<b>Operating Temperature</b>	-30 °C to +80 °C
<b>Intermittent Operating Temperature</b>	+95 °C
<b>Water Absorption</b>	0.9 %
<b>Tensile Strength</b>	16 N/mm <sup>2</sup>
<b>Elongation at break</b>	200 %
<b>Volume Resistance</b>	10 <sup>12</sup> Ω cm
<b>Dielectric Strength</b>	19.7 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER 670-VM	1.20	100.0	3.0 m	Black (BK)	711-00304

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





### Self-amalgamating Tapes – Medium Voltage Rubber Tape (Linerless)

#### HelaTape Power 715

The rubber-based self-amalgamating linerless tape is used for electrical insulation, protection, sealing, splicing and termination of cables up to 35 kV. The special material comes without a separating liner and reduces therefore the time required to apply the tape. It features with excellent UV, moisture, corrosion, ozone and chemical resistance. HelaTape Power 715 is compatible with all extruded dielectric cable insulations.

#### Features and benefits

- Rubber-based self-amalgamating linerless tape
- Used for waterproof sealing and corrosion protection of cables
- Excellent electrical insulation and weather protection
- Time saving application without liner
- The lack of liner causes less waste
- Easy to apply and very flexible



*HelaTape Power 715 allows quicker layering due to the linerless composition.*

<b>MATERIAL</b>	Ethylene Propylene Rubber (EPR)
<b>Operating Temperature</b>	+90 °C
<b>Intermittent Operating Temperature</b>	+130 °C
<b>Water Absorption</b>	0.06 %
<b>Tensile Strength</b>	2.1 N/mm <sup>2</sup>
<b>Elongation at break</b>	700 %
<b>Volume Resistance</b>	10 <sup>16</sup> Ω cm
<b>Dielectric Strength</b>	30 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER715-19x10	0.50	19.0	10.0 m	Black (BK)	711-00311
HTAPE-POWER715-25x10	0.50	25.0	10.0 m	Black (BK)	711-00312

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



### Self-amalgamating Tapes – Silicone Rubber Tape

#### HelaTape Power 800

#### Features and benefits

- Self-amalgamating and self-cleaning, chemically cross-linked silicone rubber tape
- Triangular cross-section with centre line for precise half-overlapping
- Resistant to creepage and surface erosion
- Fuses into solid mass after application
- Weather, UV and oil resistant
- Recommended use for high temperature silicone insulated cables and outdoor machinery and transformers



*HelaTape Power 800 is a silicone rubber tape with triangular cross-section.*

<b>MATERIAL</b>	Silicone (SI)
<b>Operating Temperature</b>	-54 °C to +180 °C
<b>Intermittent Operating Temperature</b>	+260 °C
<b>Tensile Strength</b>	7.0 N/mm <sup>2</sup>
<b>Elongation at break</b>	400 %
<b>Volume Resistance</b>	10 <sup>14</sup> Ω cm
<b>Dielectric Strength</b>	23.5 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER800	0.51	25.0	9.1 m	Grey (GY)	711-10400

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



### Self-amalgamating Tapes – High Voltage Rubber Tape

#### HelaTape Power 810

##### Features and benefits

- Self-amalgamating tape for insulating and jacketing splices up to 69 kV
- Halogen-free with outstanding corona, ozone and UV-resistance
- Ideal for sealing of terminations, electrical connections and cable jacket repair
- Void-free, electrically stable layering
- Protects e.g. bus bars against corrosion and contact
- Excellent moisture, corrosion and chemical resistance
- Compatible with all extruded cable insulations



HelaTape Power 810 for primary insulation up to 69 kV.

<b>MATERIAL</b>	Ethylene Propylene Rubber (EPR)
<b>Operating Temperature</b>	+90 °C
<b>Intermittent Operating Temperature</b>	+130 °C
<b>Water Absorption</b>	0.06 %
<b>Tensile Strength</b>	2.4 N/mm <sup>2</sup>
<b>Elongation at break</b>	750 %
<b>Volume Resistance</b>	10 <sup>16</sup> Ω cm
<b>Dielectric Strength</b>	30 kV/mm

HF ✓

RoHS ✓

TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER810	0.76	19.0	9.1 m	Black (BK)	711-10401

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



### Self-amalgamating Tapes – High Voltage Rubber Tape (Linerless)

#### HelaTape Power 820

#### Features and benefits

- Self-amalgamating, linerless tape for insulating and jacketing splices up to 69 kV
- Excellent electrical, chemical and physical properties
- Building stress cones and jacketing of terminations, bus bars and joints
- Quicker application due to linerless design
- The lack of liner causes less waste
- Uniform and void-free layering
- Very flexible to conform to the most complex shapes
- Compatible with all extruded cable insulations



*HelaTape Power 820 provides substantial time saving due to the linerless design.*

<b>MATERIAL</b>	Ethylene Propylene Rubber (EPR)
<b>Operating Temperature</b>	-30 °C to +90 °C
<b>Intermittent Operating Temperature</b>	+130 °C
<b>Water Absorption</b>	0.06 %
<b>Tensile Strength</b>	2.8 N/mm <sup>2</sup>
<b>Elongation at break</b>	750 %
<b>Volume Resistance</b>	10 <sup>16</sup> Ω cm
<b>Dielectric Strength</b>	31.5 kV/mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
HTAPE-POWER820	0.76	19.0	9.1 m	Black (BK)	711-10402

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



### Technical Tapes – Cloth Tape

#### HelaTape Tex

#### Features and benefits

- High quality PE-coated cloth tape with good weather resistance
- Total thickness of 0.31 mm for high tensile strength
- Highly tear-resistant in longitudinal direction
- Easy to tear-off by hand in transverse direction
- Matt surface finish for use in stage constructions and for exhibitions to avoid light reflections
- Useful for various applications like bundling, fixing, identification, marking and protection
- HelaTape Tex can be removed without residues due to high quality rubber based adhesive



HelaTape Tex is available in various colours and sizes.

<b>MATERIAL</b>	Cotton (CO)
<b>Operating Temperature</b>	-30 °C to +80 °C
<b>Adhesion to Backing</b>	3.0 N/10 mm
<b>Elongation at break</b>	10 %
<b>Breaking Strength</b>	64 N/10 mm



TYPE	Thickness (T)	Width (W)	Length (L)	Colour	Article-No.
<b>HTAPE-TEX-19x10</b>	0.31	19.0	10.0 m	Black (BK)	712-00204
	0.31	19.0	10.0 m	Blue (BU)	712-00200
	0.31	19.0	10.0 m	Green (GN)	712-00203
	0.31	19.0	10.0 m	Grey (GY)	712-00206
	0.31	19.0	10.0 m	Red (RD)	712-00201
	0.31	19.0	10.0 m	White (WH)	712-00205
	0.31	19.0	10.0 m	Yellow (YE)	712-00202
<b>HTAPE-TEX-19x50</b>	0.31	19.0	50.0 m	Black (BK)	712-00504
	0.31	19.0	50.0 m	Blue (BU)	712-00500
	0.31	19.0	50.0 m	Green (GN)	712-00503
	0.31	19.0	50.0 m	Grey (GY)	712-00506
	0.31	19.0	50.0 m	Red (RD)	712-00501
	0.31	19.0	50.0 m	White (WH)	712-00505
	0.31	19.0	50.0 m	Yellow (YE)	712-00502
<b>HTAPE-TEX-50x50</b>	0.31	50.0	50.0 m	Black (BK)	712-00904
	0.31	50.0	50.0 m	Blue (BU)	712-00900
	0.31	50.0	50.0 m	Green (GN)	712-00903
	0.31	50.0	50.0 m	Grey (GY)	712-00906
	0.31	50.0	50.0 m	Red (RD)	712-00901
	0.31	50.0	50.0 m	White (WH)	712-00905
	0.31	50.0	50.0 m	Yellow (YE)	712-00902

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



### 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.

<b>MATERIAL</b>	Polyurethane resin (PUR)
<b>Colour</b>	Green (GN)
<b>Operating Temperature</b>	-25 °C to +120 °C
<b>Mixing Ratio (weight)</b>	100:26
<b>Exothermicity max.</b>	+71 °C
<b>Gel Time</b>	48 min. 5°C, 20 min. 23°C, 9 min. 40°C
<b>Pot Life</b>	43 min. 5°C, 15 min. 23°C, 8 min. 40°C
<b>Dielectric Strength</b>	38 kV/mm
<b>Viscosity</b>	4500 mPa*s, 5 °C (EN ISO 2555), 3000 mPa*s, 23 °C (EN ISO 2555)
<b>Impact Strength</b>	26 kJ/m <sup>2</sup>
<b>Shore Hardness D</b>	65±5
<b>Storage Temperature</b>	+4 °C to +40 °C
<b>Shelf Life</b>	48 months



TYPE	Resin Quantity	Article-No.
Resin-33-SF-N	95 ml/130 g	435-12112
	240 ml/329 g	435-12114
	400 ml/548 g	435-12115
	490 ml/671 g	435-12117

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



### 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.

<b>MATERIAL</b>	Polyurethane resin (PUR)
<b>Colour</b>	Black (BK)
<b>Operating Temperature</b>	-25 °C to +130 °C
<b>Mixing Ratio (weight)</b>	100:22
<b>Exothermicity max.</b>	+71 °C
<b>Gel Time</b>	70 min. 5°C, 20 min. 23°C, 8 min. 40°C
<b>Pot Life</b>	50 min. 5°C, 15 min. 23°C, 5 min. 23°C
<b>Dielectric Strength</b>	>20 kV/mm
<b>Viscosity</b>	4000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
<b>Impact Strength</b>	16 kJ/m <sup>2</sup>
<b>Shore Hardness D</b>	56±5
<b>Storage Temperature</b>	+4 °C to +40 °C
<b>Shelf Life</b>	36 months



TYPE	Resin Quantity	Article-No.
Resin-771-SF_N	95 ml/130 g	435-01238
	240 ml/329 g	435-01240
	400 ml/548 g	435-01241
	490 ml/671 g	435-01243

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



### 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



Two-component gel KH 67.

<b>MATERIAL</b>	Polybutadiene (PBD)
<b>Colour</b>	Yellow (YE)
<b>Operating Temperature</b>	-40 °C to +90 °C
<b>Mixing Ratio (weight)</b>	100:67
<b>Pot Life</b>	40 min. 23°C
<b>Density</b>	0.95 g/cm <sup>3</sup> , 20 °C (DIN EN ISO 2811-2)
<b>Dielectric Strength</b>	>15 kV/mm
<b>Viscosity</b>	3000 mPa*s, 5 °C (EN ISO 2555), 2000 mPa*s, 23 °C (EN ISO 2555)
<b>Storage Temperature</b>	+4 °C to +40 °C
<b>Shelf Life</b>	36 months



**Silicon free!**



TYPE	Pack Cont.	Article-No.
Gel-KH67-SF-N	180 ml	435-00825
	250 ml	435-00826
	600 ml	435-00827

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





### Straight-through gel cable joints without connectors

#### 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.

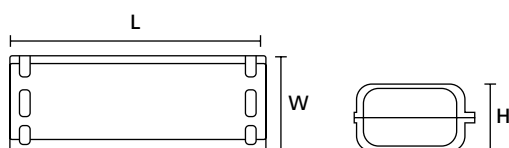
Application: In low-voltage electrical networks as straight-through and/or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.

#### Features and benefits

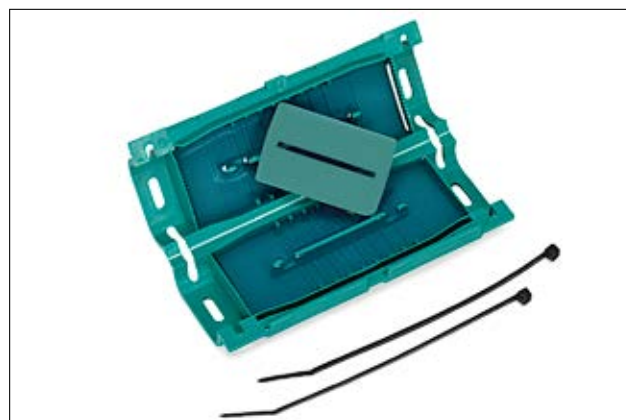
- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- Up to max. 4 cores
- Tested according to EN 50393 (corresponds to DIN VDE 0278-393)
- IPX8 tested

#### Content of Set / Kit

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



Relifix 410, 416



Gel cable joint Relifix 410, 416.

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

**RoHS** ✓

**i** Without connector block!

TYPE	Ø Main Cable	Main Cable mm <sup>2</sup>		Branch Cable mm <sup>2</sup>		Length (L)	Width (W)	Height (H)	Article-No.
		min	max	min	max				
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

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.



## Straight-through gel cable joints with connectors

### 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.

### Features and benefits

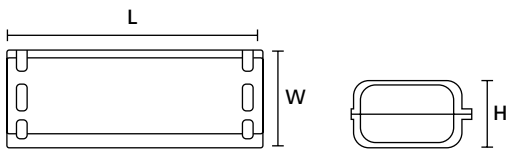
- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready for assemble
- Tested according to EN 50393 (corresponds to DIN VDE 0278-393)
- IPX8 tested

### Content of Set / Kit

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



**With connector block!**



Relifix V



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



Gel cable joint Relifix V 31,5.



Gel cable joint Relifix V 150.



Gel cable joint Relifix V 56, V516.



Gel cable joint Relifix V 525.

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

**RoHS** ✓

TYPE	Ø Main Cable	Main Cable mm <sup>2</sup> min - max		Branch Cable mm <sup>2</sup> min - max		Length (L)	Width (W)	Height (H)	Article-No.
<b>Relifix V31.5</b>	9-16	3 x 0,5	3 x 2,5	-	-	86.0	47.0	27.0	435-00650
<b>Relifix V56</b>	9-20	3 x 1,5	5 x 6	-	-	146.0	55.0	35.0	435-00654
<b>Relifix V150</b>	9-16	1 x 10	1 x 50	1 x 2,5	1 x 6	86.0	47.0	27.0	435-00651
<b>Relifix V516</b>	9-22	3 x 6	5 x 16	-	-	180.0	69.0	40.0	435-00655
<b>Relifix V525</b>	9-30	3 x 16	5 x 25	-	-	240.0	75.0	48.0	435-00656

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.



## Straight-through gel cable joints with connectors

### 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.

### 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 assemble
- Tested according to EN 50393 (corresponds to DIN VDE 0278-393)
- IPX8 tested

### Content of Set / Kit

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



Relicon Relifix VY gel cable joint.



Gel cable joint Relifix V 525Y.



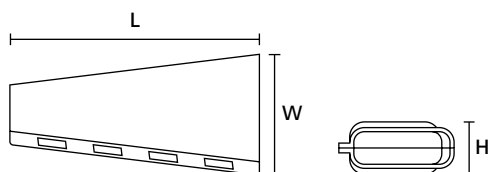
Gel cable joint Relifix V 506Y.

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

RoHS



**With connector block!**



Relifix VY

TYPE	Ø Main Cable	Main Cable mm <sup>2</sup> min - max		Branch Cable mm <sup>2</sup> min - max		Length (L)	Width (W)	Height (H)	Article-No.
		3 x 6	5 x 6	3 x 2.5	5 x 6				
<b>Relifix V506Y</b>	9-20	3 x 6	5 x 6	3 x 2.5	5 x 6	220.0	110.0	53.0	435-00658
<b>Relifix V525Y</b>	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.



## RELICON Religel Plus

### Religel Plus

RELICON Religel Plus is a green-transparent, elastic 2-component silicone gel. It is packed in practical bottles or canisters including measuring cup and mixing stick. It is particularly suited to fill junction boxes for low voltage applications. Electrical insulation in low-voltage applications, Encapsulation of cables and wires in junction boxes, Building and household installations, Belowground, submerged.

### Features and benefits

- Timesaving due to fast curing time
- Stable up to 200 °C
- Visual control of the homogenous mixture indicated by green-coloured component B
- Multiple use possible, mixing ratio 1:1
- Excellent flow and insulating properties
- Excellent moisture and chemical resistance
- Soft elastic, vibration absorbing and removable residue-free



RELICON Religel Plus - Fast curing and heat resistant two-component silicone gel.

<b>MATERIAL</b>	Silicone (SI)
<b>Colour</b>	Green (GN), Transparent (CL)
<b>Operating Temperature</b>	-60 °C to +200 °C
<b>Mixing Ratio (weight)</b>	1:1
<b>Gel Time</b>	12 min. 23°C
<b>Pot Life</b>	5 min. 23°C
<b>Density</b>	0.97 g/cm <sup>3</sup> , 20 °C (DIN EN ISO 2811-2)
<b>Dielectric Strength</b>	>25 kV/mm
<b>Viscosity</b>	1000 mPa*s, 23 °C (EN ISO 2555)
<b>Storage Temperature</b>	+4 °C to +40 °C
<b>Shelf Life</b>	Unlimited



TYPE	Pack Cont.	Article-No.
Religel Plus 500	500 ml	435-00756
Religel Plus 1.000	1,000 ml	435-00752

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.



### 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



Two-component gel KH 100.

<b>MATERIAL</b>	Polybutadiene (PBD)
<b>Colour</b>	Transparent (CL), Orange (OG)
<b>Operating Temperature</b>	-40 °C to +90 °C
<b>Mixing Ratio (weight)</b>	1:1
<b>Gel Time</b>	40 min. 23°C
<b>Density</b>	0.95 g/cm <sup>3</sup> , 20 °C (DIN EN ISO 2811-2)
<b>Dielectric Strength</b>	>20 kV/mm
<b>Viscosity</b>	2000 mPa*s, 5 °C (EN ISO 2555), 1500 mPa*s, 23 °C (EN ISO 2555)
<b>Storage Temperature</b>	+4 °C to +40 °C
<b>Shelf Life</b>	18 months



**Silicon free!**



TYPE	Pack Cont.	Article-No.
GelMixingNozzle_KH100	10 pcs.	435-00836
Gel-100 250 ml	250 ml	435-00835
Gel-100 600 ml	600 ml	435-00837

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



### One-component gel

#### RELICON 1 K Gel

Transparent 1-component silicone gel for the electrical insulation of junction boxes and electronic components. Particularly suitable for use in overhead installations and in damp or humid environments.

#### Features and benefits

- Ready-to-use, transparent silicone gel in cartridge
- Extremely sticky and not dripping
- Keeps insects away from electrical installations
- IP 68 in combination with appropriate junction box
- Very strong adhesion makes it suitable for overhead installation
- Stitch channel closes again, the gel is self-healing
- Recoverable and removable
- Resealable cartridge allows multiple use
- Label-free and non-toxic
- Halogen free
- Isocyanate free



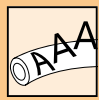
Particularly suitable for use in overhead installations and in damp or humid environments.

<b>MATERIAL</b>	Silicone (SI)
<b>Colour</b>	Transparent (CL)
<b>Operating Temperature</b>	-60 °C to +200 °C
<b>Dielectric Strength</b>	>20 kV/mm
<b>Viscosity</b>	3000 mPa*s, 23 °C (EN ISO 2555)
<b>Storage Temperature</b>	+5 °C to +40 °C
<b>Shelf Life</b>	Unlimited



TYPE	Pack Cont.	Article-No.
Pressgel	310 ml	435-00838

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



### Shrinkable markers „Continuous Tube“, thermal transfer

#### TULT – 3:1 Military and Electronics

TULT is a UL recognized 3:1 heat shrink marker material supplied as a continuous tube and printable on both sides. TULT's polyolefin compound has good mechanical strength and resistance to organic solvents and chemicals. The surface of the tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

#### Features and benefits

- Shrink ratio 3:1
- Available in black, blue, red, white and yellow
- Cable range from 39 mm to 1 mm
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Delivery in convenient storage boxes



TULT – good mechanical strength and resistance to organic solvents and chemicals.



TULT – five colours of UL recognised printable tube to cover a wide range of diameters.



<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Operating Temperature</b>	-55 °C to +135 °C
<b>Min. Shrink Temperature</b>	+90 °C
<b>Shrink Ratio</b>	3:1
<b>Recommended Ribbon Type</b>	TTDTHOUT, TTRW, TT822OUT8
<b>Thermal Transfer Printer</b>	TT431, TT4030, TrakMark DS



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT3-1WH	3.0	1.0	0.56	176 m	White (WH)	553-40351
TULT4.8-1.6WH	4.8	1.6	0.56	110 m	White (WH)	553-40451
TULT6-2WH	6.0	2.0	0.64	110 m	White (WH)	553-40651
TULT9-3WH	9.0	3.0	0.64	72 m	White (WH)	553-40951
TULT12-4WH	12.0	4.0	0.68	54 m	White (WH)	553-41251
TULT18-6WH	18.0	6.0	0.90	26 m	White (WH)	553-41851
TULT24-8WH	24.0	8.0	0.98	26 m	White (WH)	553-42451
TULT39-13WH	39.0	13.0	1.08	10 m	White (WH)	553-43951

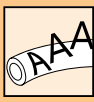
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. More colours on request.

Recommended Tools
30
H6100

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



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



### Shrinkable markers „Continuous Tube“, thermal transfer

#### TLFX – 2:1 Rail Limited Fire Hazard

TLFX is a halogen free European rail approved 2:1 heat shrink marker material supplied as a continuous tube and printable on both sides. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

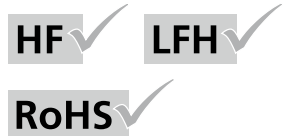
#### Features and benefits

- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- Available in yellow or white
- Cable range 50.8 mm to 1.2 mm
- Delivery in convenient storage boxes



TLFX- high performance halogen free heat shrink tube.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Operating Temperature</b>	-55 °C to +125 °C
<b>Min. Shrink Temperature</b>	+70 °C
<b>Shrink Ratio</b>	2:1
<b>Recommended Ribbon Type</b>	TTDTHOUT
<b>Thermal Transfer Printer</b>	TT431, TT4030, TrakMark DS
<b>EN 45545-2 Classification</b>	R22 HL3, R23 HL3



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24WH	2.4	1.2	0.57	144 m	White (WH)	554-51000
TLFX32WH	3.2	1.6	0.58	126 m	White (WH)	554-51100
TLFX48WH	4.8	2.4	0.61	108 m	White (WH)	554-51200
TLFX64WH	6.4	3.2	0.61	90 m	White (WH)	554-51300
TLFX95WH	9.5	4.8	0.66	72 m	White (WH)	554-51400
TLFX127WH	12.7	6.4	0.68	54 m	White (WH)	554-51500
TLFX190WH	19.0	9.5	0.69	30 m	White (WH)	554-51600
TLFX254WH	25.4	12.7	0.69	30 m	White (WH)	554-51700
TLFX381WH	38.1	19.0	0.70	13 m	White (WH)	554-51800
TLFX508WH	50.8	25.4	0.73	10 m	White (WH)	554-50900

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

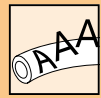
Recommended Tools
30 H6100

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

**EN 45545-2**

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





### Shrinkable markers „Ladder Style“, thermal transfer

#### TULT DS – 3:1 Military and Electronics „Ladder Style“

TULT DS is a UL recognised 3:1 heat shrink marker material pre-cut and formatted into a convenient „ladder“ system. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. TULT’s polyolefin compound has good mechanical strength and resistance to organic solvents and chemicals. The surface of the tubing has been especially prepared so that print performance is excellent at all times using HellermannTyton’s printer range.

#### Features and benefits

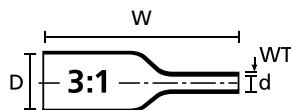
- Shrink ratio 3:1
- 50 mm, 25 mm and 16 mm pre-cut marker options as standard, other lengths available on request
- Available in white or yellow
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Delivery in convenient storage boxes



Shrinkable markers TULT DS for military and electronics industry.



TULT DS – shrinkable markers with good mechanical strength for a wide range of applications.



<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Operating Temperature</b>	-55 °C to +135 °C
<b>Min. Shrink Temperature</b>	+90 °C
<b>Shrink Ratio</b>	3:1
<b>Recommended Ribbon Type</b>	TTDTHOUT
<b>Thermal Transfer Printer</b>	TT431, TT4030, TrakMark DS



TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT2.4-0.8DS-1x50WH	2.4	0.8	50.0	0.53	1,000 pcs.	White (WH)	553-71000
TULT3-1DS-1x50WH	3.0	1.0	50.0	0.56	1,000 pcs.	White (WH)	553-71006
TULT4.8-1.6DS-1x50WH	4.8	1.6	50.0	0.56	1,000 pcs.	White (WH)	553-71012
TULT6-2DS-1x50WH	6.0	2.0	50.0	0.64	1,000 pcs.	White (WH)	553-71018
TULT9-3DS-1x50WH	9.0	3.0	50.0	0.64	500 pcs.	White (WH)	553-71024
TULT12-4DS-1x50WH	12.0	4.0	50.0	0.68	500 pcs.	White (WH)	553-71030
TULT18-6DS-1x50WH	18.0	6.0	50.0	0.90	500 pcs.	White (WH)	553-71036
TULT24-8DS-1x50WH	24.0	8.0	50.0	1.08	250 pcs.	White (WH)	553-71042
TULT39-13DS-1x50WH	39.0	13.0	50.0	1.08	250 pcs.	White (WH)	553-71048

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

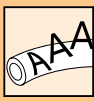
#### Recommended Tools

30  
H6100

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



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



### Shrinkable markers „Ladder Style“, thermal transfer

#### TLFX DS – 2:1 Rail Limited Fire Hazard „Ladder Style“

TLFX DS is a halogen free European rail approved 2:1 heat shrink marker material supplied pre-cut and formatted into a convenient „ladder“ system. Special material properties show low smoke propagation, density and toxicity. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

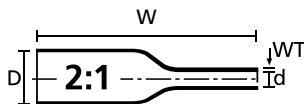
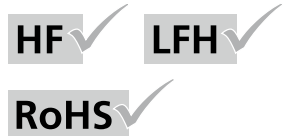
#### Features and benefits

- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- 50 mm, 25 mm and 16 mm pre-cut marker options as standard
- Available in yellow or white
- Other lengths and colours available on request
- Cable range 38.1 mm to 1.2 mm
- Delivery in convenient storage boxes



Shrinkable rail approved markers TLFX DS.

<b>MATERIAL</b>	Polyolefin, cross-linked (PO-X)
<b>Operating Temperature</b>	-55 °C to +105 °C
<b>Min. Shrink Temperature</b>	+100 °C
<b>Shrink Ratio</b>	2:1
<b>Recommended Ribbon Type</b>	TTDTHOUT
<b>Thermal Transfer Printer</b>	TT431, TT4030, TrakMark DS
<b>EN 45545-2 Classification</b>	R22 HL3, R23 HL3



TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24DS-1x50WH	2.4	1.2	50.0	0.52	5,000 pcs.	White (WH)	553-60000
TLFX32DS-1x50WH	3.2	1.6	50.0	0.64	5,000 pcs.	White (WH)	553-60001
TLFX48DS-1x50WH	4.8	2.4	50.0	0.64	5,000 pcs.	White (WH)	553-60002
TLFX64DS-1x50WH	6.4	3.2	50.0	0.73	3,000 pcs.	White (WH)	553-60003
TLFX95DS-1x50WH	9.5	4.8	50.0	0.70	2,500 pcs.	White (WH)	553-60004
TLFX127DS-1x50WH	12.7	6.4	50.0	0.70	1,500 pcs.	White (WH)	553-60005
TLFX190DS-1x50WH	19.0	9.5	50.0	0.78	1,500 pcs.	White (WH)	553-60006
TLFX254DS-1x50WH	25.4	12.7	50.0	0.93	1,000 pcs.	White (WH)	553-60007
TLFX381DS-1x50WH	38.1	19.1	50.0	0.98	500 pcs.	White (WH)	553-60008

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

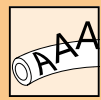
Recommended Tools
30 H6100

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

EN 45545-2

ASTM

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### Identification tags for cable bundle, thermal transfer

#### TIPTAG HF – Rail Limited Fire Hazard, Halogen free

The Tiptag HF cable markers have been designed to identify larger wires and cable bundles not only in the electronics and general cabling environments but also in the railway industry. Tiptag HF is halogen free and its material properties show low smoke propagation, density and toxicity. Tiptags are presented in a special perforated format which include fastening slots for cable ties. They are also suitable for retrofit purposes.

Print from the reel with HellermannTyton's premium range of thermal transfer printers and ribbons for optimum print quality and longevity.

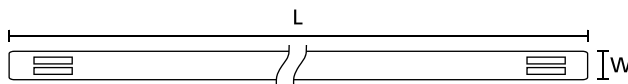
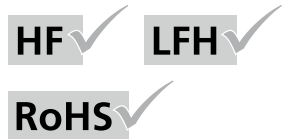
#### Features and benefits

- Ideal for marking larger wire and cable bundles
- Halogen free
- Low smoke propagation and toxicity
- Perforated format that includes fastening slots for cable ties
- Available in various colours



TIPTAG - high performance cable bundle marking.

<b>MATERIAL</b>	Polyolefin (PO)
<b>Operating Temperature</b>	-40 °C to +90 °C, (+160 °C, for 200 h)
<b>Flammability</b>	Limited Fire Hazard, low generation of toxic gases and corrosive acid, low smoke generation, halogen free
<b>Recommended Ribbon Type</b>	TTDTHOUT
<b>Thermal Transfer Printer</b>	TT431, TT4030
<b>EN 45545-2 Classification</b>	R22 HL3, R23 HL3



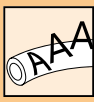
TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TIPTAG11X65WH	65.0	11.0	190 pcs.	White (WH)	556-20069
TIPTAG11X65YE	65.0	11.0	190 pcs.	Yellow (YE)	556-20064
TIPTAG15X65WH	65.0	15.0	190 pcs.	White (WH)	556-21069
TIPTAG15X65YE	65.0	15.0	190 pcs.	Yellow (YE)	556-21064
TIPTAG11X100WH	100.0	11.0	120 pcs.	White (WH)	556-20079
TIPTAG11X100YE	100.0	11.0	120 pcs.	Yellow (YE)	556-20074
TIPTAG15X100WH	100.0	15.0	120 pcs.	White (WH)	556-21079
TIPTAG15X100YE	100.0	15.0	120 pcs.	Yellow (YE)	556-21074

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.

**EN 45545-2**

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



### Identification tags for cable bundle, "Ladder Style", thermal transfer

#### TAGPU – UV-stabilised Tiptags

TAGPU is a specially designed cable marker for identifying larger wire and cable bundles, where a permanently legible and UV resistant marking is required. The cable markers consist of a robust and flexible polyurethane material and are especially suited for harsh environments. They are supplied pre-cut and have been formatted into a convenient "ladder" system. The markers are applied to cable and harness assemblies with cable ties, and are also suitable for retrofit purposes. The material has been conditioned for printing on both thermal transfer and laser beam printers. Simply print and press out the required TAGPU and apply with cable ties.

Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

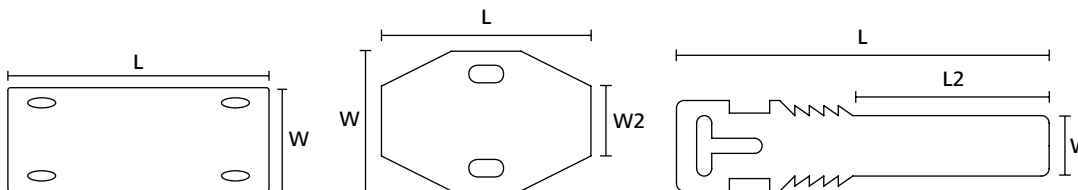
#### Features and benefits

- UV-stabilised
- For larger cables and wires, bundles
- Robust and flexible material
- Thermal transfer or laser beam printable
- Available in various colours
- Halogen Free
- Good mechanical strength and highly flexible
- Delivery in convenient storage boxes



Cable marker for easy marking in tough environments.

<b>MATERIAL</b>	Polyurethane (PUR)
<b>Operating Temperature</b>	-25 °C to +105 °C
<b>Flammability</b>	UL 94 V0 (3 mm)
<b>Recommended Ribbon Type</b>	TTRHT, TTRC+
<b>Thermal Transfer Printer</b>	TT431, TT4030



Identification tag with four fixing holes.

TYPE	Drawing	Length (L)	Length (L2)	Width (W)	Width (W2)	Bundle Ø min.	Bundle Ø max.	Pack Cont.	Colour	Article-No.
TAGPU20X51-6		51.5	-	20.4	-	-	-	1,000 pcs.	White (WH)	556-82056
		51.5	-	20.4	-	-	-	1,000 pcs.	Yellow (YE)	556-80543
TAGPU10X51-4		51.5	-	10.4	-	-	-	2,000 pcs.	White (WH)	556-80529
		51.5	-	10.4	-	-	-	2,000 pcs.	Yellow (YE)	556-80542
TAGPU20X51-4		51.5	-	20.4	-	-	-	1,000 pcs.	White (WH)	556-80530
		51.5	-	20.4	-	-	-	1,000 pcs.	Yellow (YE)	556-80531
TAGPU20X30-2		30.0	-	20.0	11.0	-	-	1,000 pcs.	White (WH)	556-80527
		30.0	-	20.0	11.0	-	-	1,000 pcs.	Yellow (YE)	556-80528
TAGPU12X74-LOOP		74.0	40.0	12.0	-	2.8	8.0	500 pcs.	White (WH)	556-80584
		74.0	40.0	12.0	-	2.8	8.0	500 pcs.	Yellow (YE)	556-80585

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.



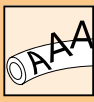
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temperature,  
easy  
maintenance**

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### Self-laminating labels, thermal transfer

#### Helatag 896

The specially formulated adhesive labels give the highest quality print clarity when printed on thermal transfer printers. The range of materials and ribbons have been developed to suit the needs of most users. Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

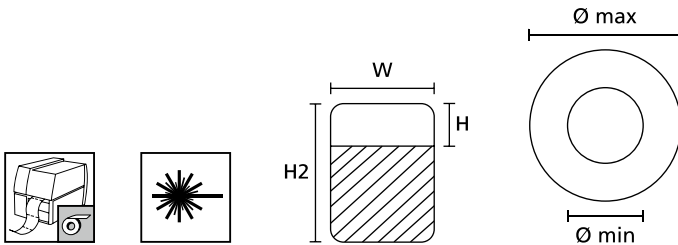
#### Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength
- Other colours available on request



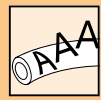
Helatag 896 offers an excellent protection against abrasion and environmental impact.

<b>MATERIAL</b>	Type 896, Vinyl (896)
<b>Operating Temperature</b>	-40 °C to +80 °C
<b>Curing Temperature</b>	from +10 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	80 µm
<b>Chem. Material Properties</b>	self extinguishing, resistant to oils, water and solvents
<b>Recommended Ribbon Type</b>	TT932DOUT
<b>Thermal Transfer Printer</b>	TT431, TT4030



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.
TAG51TD3-896-WHCL	1.4	3.0	25.4	8.8	19.1	85.0	3 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-51896
TAG26TD6-896-WHCL	1.5	3.0	12.7	9.5	19.1	85.0	6 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-26896
TAG36TD7-896-WHCL	2.0	4.7	12.7	9.0	23.8	95.0	7 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-36896
TAG2TD6-896-WHCL	3.5	7.6	12.7	12.7	36.5	82.0	6 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-02896
TAG22TD3-896-WHCL	3.5	7.6	25.4	12.7	36.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-22896
TAG24TD1-896-WHCL	3.5	7.6	50.8	12.7	36.5	55.0	1 pc.	1,000 pcs.	White (WH), Transparent (CL)	596-24896
TAG25TD3-896-WHCL	4.5	10.0	25.4	12.7	44.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-25896

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

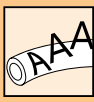


### Self-laminating labels, thermal transfer

#### Helatag 896

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.
<b>TAG9TD3-896-WHCL</b>	5.5	12.1	25.4	19.1	57.1	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-09896
<b>TAG10TD2-896-WHCL</b>	5.5	12.1	49.5	19.1	57.1	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-10896
<b>TAG6TD1-896-WHCL</b>	10.0	22.2	50.8	25.4	95.3	55.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-06896
<b>TAG107TD3-896-WHCL</b>	12.0	37.5	25.4	31.8	149.9	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-10789
<b>TAG07TD1-896</b>	20.8	47.5	50.8	25.4	187.2	55.0	1 pc.	250 pcs.	White (WH), Transparent (CL)	596-70896

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 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.

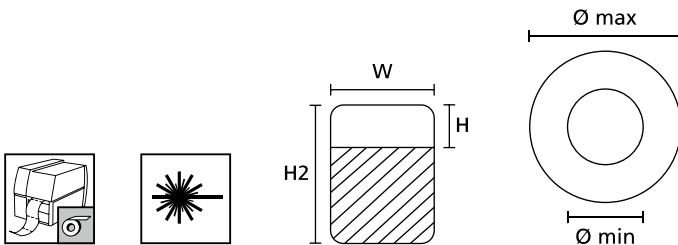
#### Features and benefits

- 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



Easy marking of flexible, semi-rigid and rigid cables and wires.

<b>MATERIAL</b>	Type 323, Polyvinylidene Fluoride (323)
<b>Operating Temperature</b>	-40 °C to +140 °C
<b>Curing Temperature</b>	from +10 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	25 µm
<b>Chem. Material Properties</b>	Excellent resistance against water, UV radiation, weather influence and solvents based on petroleum.
<b>Recommended Ribbon Type</b>	TT932DOUT
<b>Thermal Transfer Printer</b>	TT431, TT4030



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

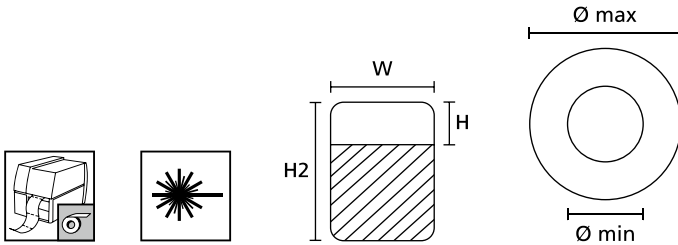
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.





### Self-laminating labels, thermal transfer

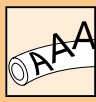
#### Helatag 323, high temperature



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.
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.



### Self-laminating labels, laser printer

#### Helatag 1104 (White-Transparent)

A specially developed material for use in labels required to wrap around cables and wires. The structure of the label ensures that once the label is applied to the wire it remains in place without lifting. The rounded edge construction gives additional bonding features not found in straight edge label designs. The information is printed onto the white inscription area. The printed information area is placed onto the wire and the transparent tail is wrapped around the wire and covers the text; this gives excellent protection from abrasion, dust and debris. TagPrint Pro labelling program comes pre-loaded with all our labels. Designing labels is simply done; just choose inbuilt graphics or download your own and add data from ERP system or standard office programs such as Excel. Barcodes are created in a couple of clicks.

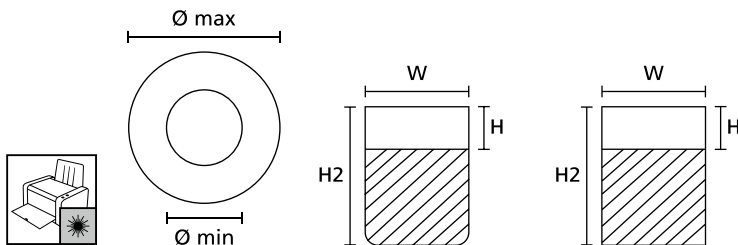


Laminating the mark gives long-term print survivability.

#### Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength
- Standard material (25 micron) for standard labels
- Simple and efficient label design and printing with TagPrint Pro labelling software
- Templates available from [www.HellermannTyton.com/templates](http://www.HellermannTyton.com/templates) for those wishing to use MS Word
- Clear protective box to ensure labels stay as good as new

<b>MATERIAL</b>	Type 1104, Polyester, white transparent, self-laminating (1104)
<b>Operating Temperature</b>	-40 °C to +150 °C
<b>Curing Temperature</b>	from +10 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	25 µm
<b>Chem. Material Properties</b>	Excellent resistance to alcohol, gasoline, cleaning solvents, butanol, ethyl and Butylcellosolve solvent, battery acid.



Only 594-11041 and 594-11040

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Labels per Sheet	Pack Cont.	Colour	Article-No.
TAG26LA4-1104-WHCL	1.5	3.0	12.7	9.5	19.1	180 pcs.	5,000 pcs.	White (WH), Transparent (CL)	594-11041
TAG130LA4-1104-WHCL	2.4	4.8	12.7	9.0	24.0	165 pcs.	5,000 pcs.	White (WH), Transparent (CL)	594-21104
TAG49LA4-1104-WHCL	2.6	5.3	25.4	8.8	25.4	70 pcs.	2,500 pcs.	White (WH), Transparent (CL)	594-11042
TAG131LA4-1104-WHCL	3.8	7.6	12.7	12.7	36.5	105 pcs.	2,500 pcs.	White (WH), Transparent (CL)	594-31104
TAG132LA4-1104-WHCL	3.8	7.6	20.3	12.7	36.5	63 pcs.	2,500 pcs.	White (WH), Transparent (CL)	594-41104
TAG02LA4-1104-WHCL	3.8	7.6	25.4	12.7	36.5	49 pcs.	2,450 pcs.	White (WH), Transparent (CL)	594-01104
TAG133LA4-1104-WHCL	5.1	10.1	19.1	12.7	44.5	60 pcs.	2,500 pcs.	White (WH), Transparent (CL)	594-51104
TAG134LA4-1104-WHCL	5.1	10.1	25.4	12.7	44.5	42 pcs.	1,000 pcs.	White (WH), Transparent (CL)	594-61104
TAG09LA4-1104-WHCL	5.8	11.6	25.4	19.1	55.5	35 pcs.	1,000 pcs.	White (WH), Transparent (CL)	594-11104
TAG135LA4-1104-WHCL	6.7	13.5	48.5	12.7	55.0	20 pcs.	500 pcs.	White (WH), Transparent (CL)	594-71104
TAG137LA4-1104-WHCL	7.1	14.3	31.8	22.9	67.7	24 pcs.	1,000 pcs.	White (WH), Transparent (CL)	594-91104
TAG136LA4-1104-WHCL	7.7	15.5	25.4	19.1	67.7	28 pcs.	1,000 pcs.	White (WH), Transparent (CL)	594-81104
TAG145LA4-1104-WHCL	11.1	22.3	25.4	25.4	95.3	21 pcs.	1,000 pcs.	White (WH), Transparent (CL)	594-11040

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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### 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.

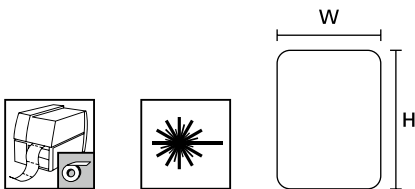
#### Features and benefits

- 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



Panel labels Helatag 1220 – high performance adhesive ensures optimal adhesion to uneven surfaces.

<b>MATERIAL</b>	Type 1220, Polyester, white (1220)
<b>Operating Temperature</b>	-40 °C to +90 °C
<b>Curing Temperature</b>	from +10 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	50 µm
<b>Chem. Material Properties</b>	Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents.
<b>Recommended Ribbon Type</b>	TT122OUT, TT822OUT
<b>Thermal Transfer Printer</b>	TT431, TT4030



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.

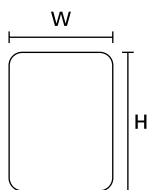
#### Features and benefits

- 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



Panel labels are an ideal replacement for engraved plates.

<b>MATERIAL</b>	Type 1221, Polyester, silver (1221)
<b>Operating Temperature</b>	-40 °C to +90 °C
<b>Curing Temperature</b>	from +10 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	50 µm
<b>Chem. Material Properties</b>	Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents.
<b>Recommended Ribbon Type</b>	TT122OUT, TT822OUT
<b>Thermal Transfer Printer</b>	TT431, TT4030



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.



### Type label identification, thermal transfer

#### Helatag 1204

This silver-matt label is scratch-resistant and is ideal for usage as identification or name plate in industrial environments. The high temperature range suits a wide range of applications on flat surfaces. The adhesive is also suitable for critical surfaces like plastic and paint. Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

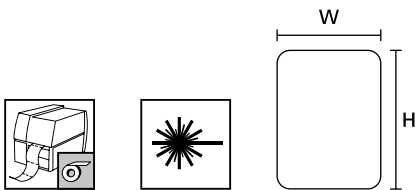
#### Features and benefits

- Replacement option for aluminium plates
- For applications on flat surfaces
- Allows the identification on critical surfaces, e.g. paints and plastic variants
- Print labels with customer unique references
- Use text, graphics and barcodes as required



Professional type plate on a heating unit.

<b>MATERIAL</b>	Type 1204, Polyester (1204)
<b>Operating Temperature</b>	-40 °C to +150 °C
<b>Curing Temperature</b>	from 0 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	53 µm
<b>Chem. Material Properties</b>	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
<b>Recommended Ribbon Type</b>	TT822OUT
<b>Thermal Transfer Printer</b>	TT431, TT4030



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6-1204-SR	12.7	11.1	101.6	6 pcs.	15,000 pcs.	Silver-matt (MTR)	596-12071
TAG13TD4-1204-SR	19.1	6.4	101.6	4 pcs.	10,000 pcs.	Silver-matt (MTR)	596-12043
TAG34TD3-1204-SR	25.4	9.5	85.1	3 pcs.	7,500 pcs.	Silver-matt (MTR)	596-34120
TAG15TD3-1204-SR	25.4	12.7	85.1	3 pcs.	7,500 pcs.	Silver-matt (MTR)	596-12045
TAG35TD3-1204-SR	31.8	9.5	101.6	3 pcs.	7,500 pcs.	Silver-matt (MTR)	596-12035
TAG17TD2-1204-SR	38.1	6.4	85.1	2 pcs.	5,000 pcs.	Silver-matt (MTR)	596-12047
TAG27TD2-1204-SR	38.1	19.1	85.1	2 pcs.	5,000 pcs.	Silver-matt (MTR)	596-27120
TAG67TD2-1204-SR	38.1	31.8	85.1	2 pcs.	1,000 pcs.	Silver-matt (MTR)	596-12067
TAG69TD2-1204-SR	40.6	22.9	89.0	2 pcs.	2,500 pcs.	Silver-matt (MTR)	596-12069
TAG77TD1-1204-SR	50.8	22.9	55.0	1 pc.	2,000 pcs.	Silver-matt (MTR)	596-12077
TAG73TD1-1204-SR	50.8	25.4	55.0	1 pc.	2,000 pcs.	Silver-matt (MTR)	596-73124
TAG66TD1-1204-SR	50.8	36.5	56.8	1 pc.	1,000 pcs.	Silver-matt (MTR)	596-12066
TAG63TD1-1204-SR	63.5	38.1	70.0	1 pc.	1,000 pcs.	Silver-matt (MTR)	596-12063
TAG76TD1-1204-SR	63.5	50.8	70.0	1 pc.	500 pcs.	Silver-matt (MTR)	596-12076
TAG72TD1-1204-SR	69.9	31.8	76.0	1 pc.	1,000 pcs.	Silver-matt (MTR)	596-12072
TAG65TD1-1204-SR	76.2	36.5	82.0	1 pc.	1,000 pcs.	Silver-matt (MTR)	596-12065
TAG62TD1-1204-SR	76.2	50.8	82.0	1 pc.	500 pcs.	Silver-matt (MTR)	596-12062
TAG64TD1-1204-SR	88.9	36.5	95.0	1 pc.	1,000 pcs.	Silver-matt (MTR)	596-12064
TAG97TD1-1204-SR	101.6	74.0	106.0	1 pc.	500 pcs.	Silver-matt (MTR)	596-71204
TAGR3TD1-1204-SR	104.0	-	108.0	1 pc.	75.0 m	Silver-matt (MTR)	596-31204
TAG02TD1-1204-SR	104.0	12.0	104.0	1 pc.	5,000 pcs.	Silver-matt (MTR)	596-21204

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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### Asset identification label, thermal transfer

#### Helatag 1206

This label is scratch-resistant and is ideal for usage as identification or name plate in industrial environments. The high temperature range suits a wide range of applications on flat surfaces. The adhesive is also suitable for critical surfaces like plastic and paint.

Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

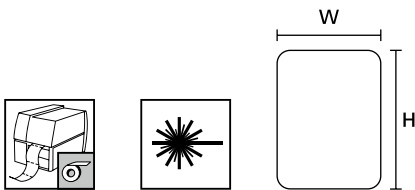
#### Features and benefits

- Ideal for machinery operating in high temperature areas (up to +150 °C)
- For applications on flat surfaces
- Chemical resistant polyester foil
- For permanent and ageing-resistant identification
- Barcodes and alphanumeric text remain pin sharp on this high quality material



Helatag labels for permanent asset identification.

<b>MATERIAL</b>	Type 1206, Polyester (1206)
<b>Operating Temperature</b>	-40 °C to +150 °C
<b>Curing Temperature</b>	from 0 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	50 µm
<b>Chem. Material Properties</b>	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
<b>Recommended Ribbon Type</b>	TT822OUT
<b>Thermal Transfer Printer</b>	TT431, TT4030



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
TAG16TD3-1206-WH	22.9	6.4	80.0	3 pcs.	10,000 pcs.	White gloss (GSWH)	596-12616
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
TAG67TD2-1206-WH	38.1	31.8	85.1	2 pcs.	2,500 pcs.	White gloss (GSWH)	596-12667
TAG69TD2-1206-WH	40.6	22.9	89.0	2 pcs.	2,500 pcs.	White gloss (GSWH)	596-12669
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
TAG68TD1-1206-WH	63.5	25.4	69.0	1 pc.	2,000 pcs.	White gloss (GSWH)	596-12668
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
TAG65TD1-1206-WH	76.2	36.5	82.0	1 pc.	1,000 pcs.	White gloss (GSWH)	596-12665
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.



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



### Protective laminates, thermal transfer

#### Helatag 323, high temperature

Protective laminates are used for the additional protection of printed type labels, for example in the automotive sector and for other outdoor installations. The protective laminates are also used if the contours of a label, for example on glass surfaces or backlit objects, should not be visible (no-label look).

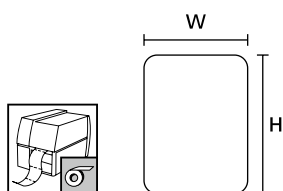
#### Features and benefits

- High temperature transparent material
- Ideal as a protective laminate or as a printed label
- The barrier label needs to overlap the covered label
- Survives 5 years external weathering in central European climate
- Provides additional protection against chemicals for the underlying label



Helatag protective laminates.

<b>MATERIAL</b>	Type 323, Polyvinylidene Fluoride, transparent (323)
<b>Operating Temperature</b>	-40 °C to +140 °C
<b>Curing Temperature</b>	from +10 °C
<b>Adhesive</b>	Acrylic
<b>Thickness of Foil</b>	25 µm
<b>Chem. Material Properties</b>	Excellent resistance against water, UV radiation, weather influence and solvents based on petroleum.
<b>Recommended Ribbon Type</b>	TT822OUT
<b>Thermal Transfer Printer</b>	TT431, TT4030

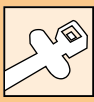


TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
<b>TAG0638TL2-323-CL</b>	43.2	11.4	94.9	2 pcs.	5,000 pcs.	Transparent (CL)	596-38321
<b>TAG1351TL1-323-CL</b>	55.9	17.8	62.0	1 pc.	2,000 pcs.	Transparent (CL)	596-51321
<b>TAG2551TL1-323-CL</b>	55.9	30.5	62.0	1 pc.	1,000 pcs.	Transparent (CL)	596-52321
<b>TAG3863TL1-323-CL</b>	68.6	43.2	75.0	1 pc.	1,000 pcs.	Transparent (CL)	596-63321

All dimensions in mm. Subject to technical changes.  
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### Stainless steel ties with RFID transponder

#### MBTRFID – High frequency (HF) and ultra high frequency (UHF), blank

Stainless steel RFID cable ties are fitted with a slide-on carrier for a high frequency (HF) or an ultra-high frequency (UHF) RFID transponder. These ties are ideal for product identification in all areas of harsh environment where high tensile strength and durability is of importance. The ties are especially suited for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

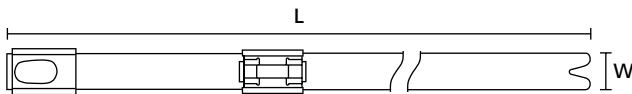
#### Features and benefits

- MBT stainless steel (316) tie complete with RFID transponder
- Especially suited for applications in harsh environments
- Patented non-releasable locking feature
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- High frequency (HF – 13.56 MHz) and ultra high frequency (UHF – 869 MHz) available
- Rewritable
- Standard colour red, black coating is also available as a special



MBTRFID – stainless steel RFID cable ties for product identification in harsh environments.

<b>MATERIAL</b>	Stainless Steel (SS316), Polyester (SP)	
<b>Frequency</b>	13.56 MHz (HF)	869 MHz (UHF)
<b>Idle Temperature</b>	-25 °C to +70 °C	-40 °C to +85 °C
<b>Operating Temperature</b>	-25 °C to +70 °C	-40 °C to +85 °C
<b>Flammability</b>	non-burning (except coating)	



MBTRFID

TYPE	Frequency	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	N	Colour	Pack Cont.	Material	Tools	Article-No.
MBT8HFRCRFID	13,56 MHz (HF)	17.0	50.0	7.9	201.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	156-01167
MBT14HFRCRFID	13,56 MHz (HF)	17.0	102.0	7.9	362.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	111-01586
MBT20HFRCRFID	13,56 MHz (HF)	17.0	152.0	7.9	521.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	111-01587
MBT27HFRCRFID	13,56 MHz (HF)	17.0	203.0	7.9	681.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	111-01588
MBT33HFRCRFID	13,56 MHz (HF)	17.0	254.0	7.9	838.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	111-01589
MBT8HHFRFID	869 MHz (UHF)	17.0	50.0	7.9	201.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	156-01565
MBT14HHFRFID	869 MHz (UHF)	17.0	102.0	7.9	362.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	156-01566
MBT20HHFRFID	869 MHz (UHF)	17.0	152.0	7.9	521.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	156-01567
MBT27HHFRFID	869 MHz (UHF)	17.0	203.0	7.9	681.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	156-01568
MBT33HHFRFID	869 MHz (UHF)	17.0	254.0	7.9	838.0	1,020	Red (RD)	50 pcs.	SS316, SP	15-18	156-01569

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Recommended Tools			
15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

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





### Stainless steel embossing system

#### M-BOSS Compact

M-BOSS Compact is a quiet easy-to-use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC. Texts are created with TagPrint Pro 4.0. Simply open the easy to use program to create print lists. Improved cooling system now ensures a continuous operation between 8-10 hours. Marker plates are attached to pipes and cables using 4.6 mm width MBT cable ties and a MK9SST hand tool.

#### Features and benefits

- Small and easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Embossed characters have been tested to withstand 1.5 million strikes each
- Improved cooling systems allows 8-10 hours continuous printing
- Use Tagprint Pro labelling software with pre-loaded templates to simplify print jobs
- 42 piece character set as standard - can be upgraded to 60 characters
- Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- Numbers: 0 1 2 3 4 5 6 7 8 9
- Symbols: & - / . , '
  - Other symbols available on request



A quiet, durable, and easy to use metal plate embossing printer.

<b>Print Method</b>	Embossing
<b>Power Supply</b>	AC 110V-240V, 45/65 Hz, 1.5A-3A
<b>Cycle Time</b>	< 1 second per character
<b>Interfaces</b>	USB 2.0
<b>System Requirements</b>	Win 7, 8, 10
<b>Dimensions W x H x D</b>	480 mm x 355 mm x 570 mm
<b>Weight</b>	41.0 kg



**For problem-free printing we recommend TagPrint Pro, page 110.**

**RoHS** ✓

TYPE	Article-No.
M-BOSS Compact	544-20000

Subject to technical changes.

#### M-BOSS Compact including Organiser

The M-BOSS Compact with included Organiser system gives the added advantage of a self-contained storage system within the print unit. The organiser is a 10 container carousel storage system that can be programmed to hold either an individual or a pre-defined set of marker plates. This means that users have the flexibility to manage how they work with the printed output. A simple input screen on the top of the machine is used to specify the quantity per container within the carousel. The carousel drawer when opened extends 430 mm from the front of the printer.

#### Features and benefits

- Ability to manage how the printed marker plates are organised
- Carousel system under the printer has 10 removable marker plate containers
- Flexible output means all marker plates or a set amount can be sent to each container
- Carousel system will hold up to 400 markers
- Each container can hold 40 marker plates



**1.5 million strikes per character without maintenance**



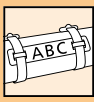
A simple solution to managing your printer output.

TYPE	Article-No.
M-BOSS Compact Organiser	544-21000

Subject to technical changes.



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# Identification Systems

## Hazardous Area Identification

### Stainless steel printing system

#### M-BOSS Compact Markers

M-BOSS Compact Markers are used in all areas where severe mechanical or chemical conditions occur e.g. offshore industry, marine engineering, petrochemical industry, mining, underground or on radio and cellular masts where mark permanence is critical.

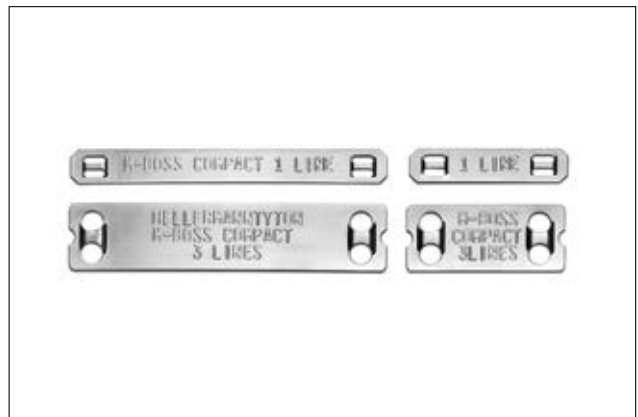
The raised surface of the embossed print ensures that the text remains visible even with dirt, grease, and paint cover the marker. The physical characteristics of the metal and the height of the embossed mark allows users to apply a stiff or metallic brush to the surface and remove excess layers of paint or grease without damaging the integrity of the text.

#### Features and benefits

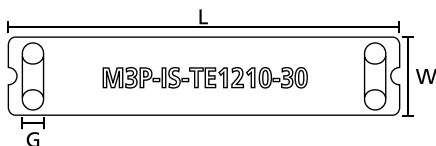
- Raised marking ensure text visibility even when covered in dust, debris, grease and oil
- Stainless steel grade SS316 is suited for use in harsh environments
- Marker plates are designed for use with stainless steel cable ties with a 4.6 mm strap width
- Apply ties with a MK9SST



Marker plates designed to survive the harshest environments.



A range of metal plate sizes to suit your needs.



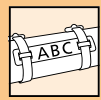
MBML

<b>MATERIAL</b>	Stainless Steel (SS316L)	Stainless Steel (SS316)
<b>Operating Temperature</b>	-80 °C to +538 °C	



TYPE	Strap Width max. (G)	Number of lines	Characters per line	Number of characters	Width (W)	Length (L)	Pack Cont.	Article-No.
MBML10X45	4.6	1	8	8	10.0	44.5	1,000 pcs.	544-80101
MBML20X45	4.6	3	8	24	20.0	44.5	1,000 pcs.	544-80201
MBML20X90	4.6	3	23	69	20.0	89.5	500 pcs.	544-80202

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



### Stainless steel pre-embossed marking system, manual

#### Hellermark SSC

#### Hellermark SSM

Hellermark is used in the rail, marine, offshore, petrochemical, food and construction industries, for the identification of cables, pipes and other equipment in harsh environments.

#### Features and benefits

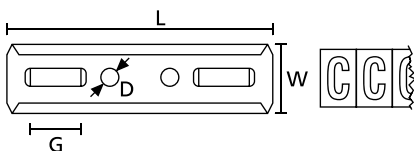
- Stainless steel pre-embossed marker tiles
- Use in harsh and hazardous conditions
- Made of grade SS316 stainless steel for ideal use in aggressive environments
- Insert marker tiles (SSM) into fitting carrier (SSC) and close ends with pliers
- Fasten carriers using stainless steel cable ties with max. strap width of 8 mm
- Carrier can be riveted or screw-fixed using two 3 mm holes at each end



Hellermark SSC and SSM.

TYPE	Marking Text	Pack Cont.	Article-No.
SSM	+	200 pcs.	540-01700
	-	200 pcs.	540-01703
	,	200 pcs.	540-01702
	.	200 pcs.	540-01701
	/	200 pcs.	540-01720
	0	200 pcs.	540-01600
	1	200 pcs.	540-01610
	2	200 pcs.	540-01620
	3	200 pcs.	540-01630
	4	200 pcs.	540-01640
	5	200 pcs.	540-01650
6	200 pcs.	540-01660	
7	200 pcs.	540-01670	
8	200 pcs.	540-01680	
9	200 pcs.	540-01690	

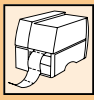
TYPE	Marking Text	Pack Cont.	Article-No.
SSM	⊥	200 pcs.	540-01730
	A	200 pcs.	540-01010
	B	200 pcs.	540-01020
	C	200 pcs.	540-01030
	D	200 pcs.	540-01040
	E	200 pcs.	540-01050
	F	200 pcs.	540-01060
	G	200 pcs.	540-01070
	H	200 pcs.	540-01080
	I	200 pcs.	540-01090
	J	200 pcs.	540-01100
	K	200 pcs.	540-01110
	L	200 pcs.	540-01120
	M	200 pcs.	540-01130
	N	200 pcs.	540-01140
	O	200 pcs.	540-01150
	P	200 pcs.	540-01160
	Q	200 pcs.	540-01170
	R	200 pcs.	540-01180
	S	200 pcs.	540-01190
	T	200 pcs.	540-01200
	U	200 pcs.	540-01210
	V	200 pcs.	540-01220
	W	200 pcs.	540-01230
	X	200 pcs.	540-01240
	Y	200 pcs.	540-01250
Z	200 pcs.	540-01260	



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

TYPE	Width (W)	Length (L)	Strap Width max. (G)	Ø (D)	Marker tiles per carrier	Pack Cont.	Article-No.
SSC46	11.0	46.0	7.9	3.0	5	10 pcs.	540-01046
SSC56	11.0	56.0	7.9	3.0	7	10 pcs.	540-01056
SSC82	11.0	82.0	7.9	3.0	11	10 pcs.	540-01082
SSC106	11.0	106.0	7.9	3.0	15	10 pcs.	540-01106
SSC134	11.0	134.0	7.9	3.0	20	10 pcs.	540-01134
SSC286	11.0	286.0	7.9	3.0	45	10 pcs.	540-01286
SSCPP (Plastic)	11.0	7.0	7.9	3.0	-	100 pcs.	540-02011

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



### 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



TT431 thermal transfer printer designed for ease of operation.

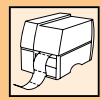
<b>Print Method</b>	Thermal transfer print
<b>Print Head Type</b>	300 dpi, flat type
<b>Print Speed</b>	up to 150 mm/s
<b>Max. Print Width</b>	105.70 mm
<b>Label Height Max (metric)</b>	4,000 mm
<b>Interfaces</b>	USB 2.0, Ethernet 10/100 Base T, RS232
<b>Supported Barcodes, Printer</b>	Standard and 2D
<b>Printer Memory</b>	256 MB RAM
<b>Dimensions W x H x D</b>	253 mm x 189 mm x 322 mm
<b>Weight</b>	4.0 kg

TYPE	Article-No.
TT431	556-00400

All dimensions in mm. Subject to technical changes.



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## 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.

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



TT4030 thermal transfer printer for high volumes.

<b>Print Method</b>	Thermal transfer print
<b>Print Head Type</b>	300 dpi, flat type
<b>Print Speed</b>	up to 300mm/s
<b>Max. Print Width</b>	105.70 mm
<b>Label Height Max (metric)</b>	2,000 mm
<b>Interfaces</b>	RS232 C, USB 2.0, Ethernet 10/100 Base T
<b>Supported Barcodes, Printer</b>	Standard, 2D
<b>Printer Memory</b>	256 MB RAM
<b>Dimensions W x H x D</b>	252 mm x 288 mm x 460 mm
<b>Weight</b>	9.98 kg

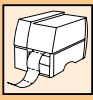


TYPE	Article-No.
TT4030	556-04037

Subject to technical changes.



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### 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

- TagPrint Pro 4.0 runs on Windows 7, 8.1 and 10, allowing full compatibility and error-free operation with the most widely used systems
- Print automation allows one-step printing of label jobs – even multi-label groups – to one or more printers simultaneously
- Visual preview allows users to see label designs before opening them
- Single-user and network-user versions accommodate the needs of any size operation
- Select saved labels visually or by part number
- Convert existing XMT files to the TagPrint data table
- Allows devmode printing to the TT4030 thermal transfer printer, for the ultimate in printer control
- Includes pre-saved designs for all common ANSI/OSHA compliant safety labels and pre-made solar installation labels



*The easy to use software speeds up production of markers, labels and identification tags.*

System Requirements	
	Operating system: Microsoft Windows 7,8.1 and 10 (32/64 bit) Random Access Memory: 1.0 GB RAM Hard disk space: 500 MB Microsoft .NET Framework 4 or higher



TYPE	Article-No.
TagPrintPro4.0-EMEA	556-00059

Subject to technical changes.



## Thermal transfer ribbons for

### Adhesive Labels

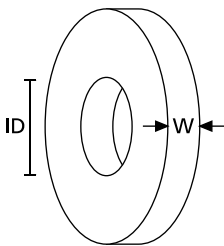
The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

### Features and benefits

- Thermal transfer ribbons for highest quality and performance of printed labels
- Ribbons are specifically designed to maximise print performance for the recommended material



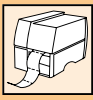
Ribbons for printing on adhesive labels.



**ID:** The standard inside core diameter is 25.4 mm.

TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
TT822OUT 60MM	323/823/880/892/1203/1204/1206/1208/1210/1211/1213/1216/1220/1221/1232/1251	Black (BK)	60.0	300 m	556-00111
TT822OUT 110MM	323/823/880/892/1203/1204/1206/1208/1210/1211/1213/1216/1220/1221/1232/1251	Black (BK)	110.0	300 m	556-00101
TT122OUT 60MM	1220/1221	Black (BK)	60.0	300 m	556-00060
TT122OUT 110MM	1220/1221	Black (BK)	110.0	300 m	556-00061

All dimensions in mm. Subject to technical changes.



### Thermal printer ribbons for

#### Heatshrink and Tiptags

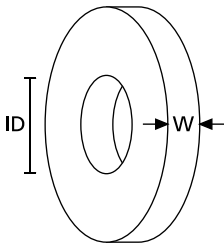
The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

#### Features and benefits

- Thermal transfer ribbons for high quality print results on heat shrink tubing and Tiptag identification tags
- Ribbons are specifically designed to maximize print performance for the recommended material



Ribbons for printing on tubes and Tiptags.

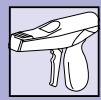


**ID: The standard inside core diameter is 25.4 mm.**

TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
TTRHTBK 70MM	TAGPU	Black (BK)	70.0	300 m	556-00204
TTRHTBK 100MM	TAGPU	Black (BK)	100.0	300 m	556-00210
TTDTHOUT	TCGT/TULT/TLFX/TIPTAG	Black (BK)	101.6	300 m	556-00144
TTDTHOUT 60MM	TCGT/TULT/TLFX/TLFD/TIPTAG	Black (BK)	60.0	300 m	556-00140
TTRC+ 30MM	TIPTAG PU/TAGPU	Black (BK)	30.0	300 m	556-00114
TTRC+ 60MM	TIPTAG PU/TAGPU	Black (BK)	60.0	300 m	556-00115
TTRC+ 100MM	TIPTAG PU/TAGPU	Black (BK)	100.0	300 m	556-00103

All dimensions in mm. Subject to technical changes.





### Manual tensioning tool plastic housing

#### EVO7i up to 4.8 mm strap width

HellermannTyton's EVO7i mechanical hand tool was ergonomically designed to reduce the risks of repetitive stress injuries to operators while concurrently increasing productivity. The EVO7i Tension/Lock/Cut Technology delivers performance, safety and comfort for the operators. Available in a standard grip span (EVO7i) or short grip span (EVO7SP), for smaller hands. Additional accessories are available.

#### 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



*The EVO7i: Maximum performance with minimum effort.*

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO7i	EVO7i	4.8	1.5	0.281 kg	110-77001
SP EVO7 Blade Kit	Blade-Kit	-	-	0.002 kg	110-70106

All dimensions in mm. Subject to technical changes.



### Manual tensioning tool plastic housing

#### EVO9 up to 13.5 mm strap width

The EVO9 is available in a standard grip span 90 mm (EVO9) or short grip span 80 mm (EVO9SP), for smaller hands. Both tools perform between 53 N and 307 N. The EVO9HT (high tension) was designed to apply HellermannTyton cable ties from 120 N until 516 N with a maximum width of 13.5 mm.

#### Features and benefits

- Standard grip span (90 mm) and short grip span (80 mm) available
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC-technology)
- Convenient and simple tension adjustment
- Integrated 3 position quick adjustment override (EVO9/EVO9SP/ EVO9HT)
- Housing made of resilient and lightweight glass fibre-reinforced polyester



The EVO9 with TLC technology.

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO9	EVO9	13.5	2.0	0.357 kg	110-80002
EVO9SP	EVO9SP	13.5	2.0	0.361 kg	110-80003
EVO9HT	EVO9HT	13.5	2.0	0.357 kg	110-80017
SP EVO9 Blade	EVO9 Blade	-	-	0.002 kg	110-80037

All dimensions in mm. Subject to technical changes.



### 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.

#### 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



The manual tensioning tool KR6/8 for KR-Series cable ties.

TYPE	Description	For Ties	Strap Width max.	Weight	Article-No.
KR6/8	KR6/8	KR6, KR8	8.0	0.69 kg	121-00680
SP KR6/8 replacement blade	Replacement blade	KR6, KR8	-	0.002 kg	122-68019

All dimensions in mm. Subject to technical changes.

### Manual tensioning tool for KR-Series

#### EVO KR

Application tool EVO KR 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. In combination with KR cable ties this system offers high vibration resistance. One reason for customers in the railway and automotive industry to take this system as a preferred solution.

#### Features and benefits

- One-handed operation
- Sideways insertion
- Durable plastic housing
- Tension adjustment
- Calibration of the EVO KR tool



The manual tensioning tool EVO KR for KR-Series cable ties.

TYPE	Description	For Ties	Weight	Article-No.
EVO-KR	EVO KR	KR6, KR8	0.523 kg	121-68000

All dimensions in mm. Subject to technical changes.



### Manual tensioning tool for metal ties MBT-Series

#### MK9SST up to 16.0 mm strap width

The MK9SST is constructed with heavy duty parts to ensure optimum performance. It is designed to apply our MBT cable ties with a strap width of up to 16 mm. The tool is ideally suited for use in most arduous environments such as found on board ships, oil rigs, constructions or in nuclear power stations.

#### Features and benefits

- Glass-fibre-reinforced housing
- Ergonomic design
- Consistent tensioning and automatic cutting of metal ties MBT-Series
- Infinitely adjustable tension force combined with two-step quick adjustment



MK9SST.

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK9SST	MK9SST	16.0	0.5	0.514 kg	110-95000
SP MK9SST replacement blade	Replacement Blade	-	-	0.004 kg	110-95273

All dimensions in mm. Subject to technical changes.



### Cordless Heat Gun - Gas powered

#### CHG900

The HellermannTyton CHG900 Cordless Heat Gun is powered by P445 gas cartridges, providing autonomous working of 90 minutes in one go. The tool is designed to produce flameless heat which makes it the ideal hot-air gun to apply a huge variety of heat shrink tubing and heat shrink wire markers as well as molded shapes or heat shrink boots, transition shapes, end caps and cable repair sleeves especially in harsh outdoor conditions covering freezing temperatures as low as -8 °C.

#### Features and benefits

- Cordless heat gun powered by P445 gas cartridges
- Flameless heat - no direct flame outlet
- 90 min autonomy per cartridge
- Qualified for harsh outdoor conditions (-8 °C)
- Lightweight 440 g tool (555 g incl. cartridge)
- Hands-free operation due to integrated standing pod
- Quick start piezo ignition
- Instant turnaround due to antifiare feature
- Precise gas flow adjustment
- Ergonomic rugged design
- Quick gas cartridge exchange
- Tool-free maintenance



HellermannTyton Cordless Heat Gun Kit - CHG900.

TYPE	Description	Article-No.
<b>CHG900</b>	Cordless Heat Gun - CHG900 Set incl. P445 Gas Cartridge and 2 nozzles.	391-90010
<b>Piezo CHG900</b>	CHG900 Spare Part - Piezo Ignition Trigger.	391-90011
<b>Gas Nozzle</b>	CHG900 Spare Part - Gas Nozzle.	391-90012
<b>P445</b>	P445 Gas Cartridge (Butane, Propane, Propene).	391-90101

Subject to technical changes.



A large grid of small dots, intended for handwritten notes or a structured list.



A large grid of dots for taking notes, consisting of 25 columns and 40 rows of small black dots.



A large grid of dots for taking notes, consisting of 20 columns and 40 rows of small black dots.





A large grid of small dots covering the majority of the page, intended for handwritten notes or a structured list.




A large grid of dots for taking notes, consisting of 20 columns and 30 rows of small black dots.

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