Cable Ties for thin-walled bundles

• OS-Series

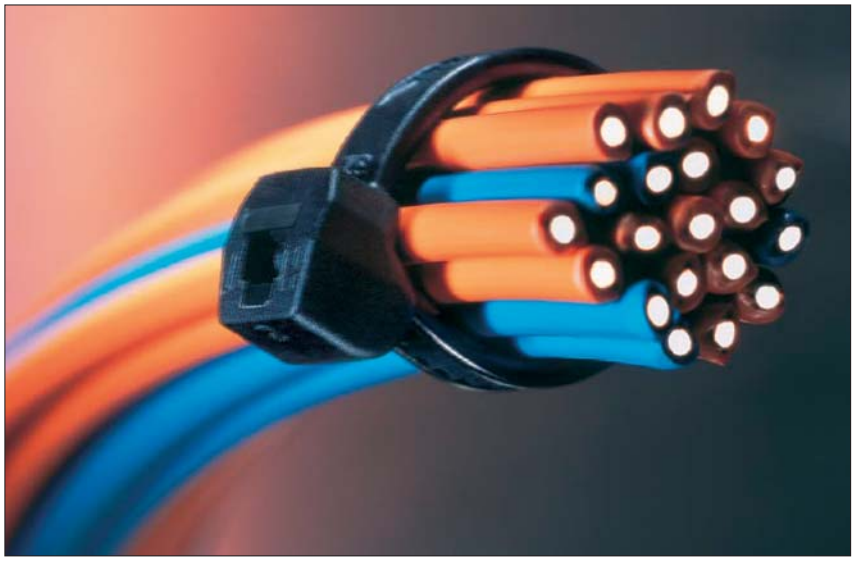
Features and Benefits

The ever increasing demands within the mass transit, automotive and data cable installation industries for tighter bundles has led to problems with the conventional inside serrated cable tie design causing damage to cable insulations, especially in vibration environments.

The OS range of outside serrated cable ties have overcome these problems. The design offers high tensile strengths, low insertion forces and a smooth surface to the cable insulation - minimising any indentation or damage. The curved shape of the head allows the tie to follow the contours of the cable and takes up less space than other designs of cable ties.

Application

Designed originally for the automotive market these ties are now being used in many areas where thin-walled or soft insulation wires and cable are being installed, e.g. railways, aircraft, data cable installations, electronics.



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

Material Data	
Material	**Polyamide 6.6 Heat Stabilised (PA66HS)**
Operating Temperature	**-40 °C to +105 °C Continuous, (+145 °C for 500 h)**
Flammability	**UL94 V2**

HF halogenfree RoHS

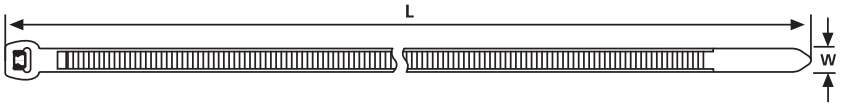
Material Data	
Material	**Polyamide 4.6 (PA46)**
Operating Temperature	**-40 °C to +150 °C for 5000 h, (+195 °C for 500 h)**
Flammability	**Limited Fire Hazard, Low generation of toxic gases and corrosive acid, Low smoke generation, UL94 V2**

LFH Limited Fire Hazard RoHS

Material Data	
Material	**Polyamide 6.6 V0 High Oxygen Index (PA66V0-HOI)**
Operating Temperature	**-40 °C to +85 °C Continuous, (+105 °C for 500 h)**
Flammability	**Low generation of toxic gases and corrosive acid, Low smoke generation, UL94 V0**

LFH Limited Fire Hazard RoHS

The new head design of the OS Series



Cable Ties Outside Serrated

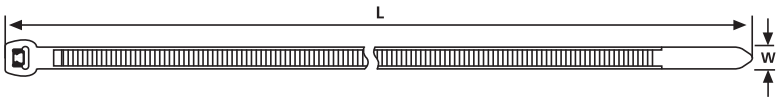
Cable Ties for thin-walled bundles

- **OS-Series**

Application Tool	Registration Numbers
MK3SP	1
MK3PNSP2, MK7P	2
MK7	3
MK7HT	4
MK20	5
MK6	6
MK9P	7
MK9	8
MK9HT	9
MK21	10

For detailed information on Application Tools please refer to page 561.

Smooth surface prevents insulation damage by chafe and indentation.



OS Series

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour	Application Tool
Polyamide 6.6 Heat Stabilised									
118-00035	**T18ROS**	100	2.5	1.6	20.0	80	PA66HS	Natural (NA)	1–3, 5
118-04701	**T18ROS**	100.0	2.5	1.6	20.0	80	PA66HS	Black (BK)	1–3, 5
118-00064	**T30ROS**	148	3.4	1.6	35.0	135	PA66HS	Natural (NA)	1–3, 5
118-04800	**T30ROS**	145	3.4	1.6	35.0	135	PA66HS	Black (BK)	1–3, 5
118-00044	**T30LOS**	200	3.4	1.6	50.0	135	PA66HS	Natural (NA)	1–3, 5
118-04900	**T30LOS**	200	3.4	1.6	50.0	135	PA66HS	Black (BK)	1–3, 5
118-05859	**T50SOS**	150	4.6	1.6	35.0	225	PA66HS	Natural (NA)	1–5
118-05850	**T50SOS**	150.0	4.6	1.6	35.0	225	PA66HS	Black (BK)	1–5
118-05059	**T50ROS**	200	4.6	1.6	50.0	225	PA66HS	Natural (NA)	1–5
118-05040	**T50ROS**	200.0	4.6	1.6	50.0	225	PA66HS	Black (BK)	1–5
118-00055	**T50MOS**	245	4.6	1.6	66.0	225	PA66HS	Natural (NA)	1–5
118-00018	**T50MOS**	245	4.6	1.6	66.0	225	PA66HS	Black (BK)	1–5
118-05900	**T50LOS**	384	4.6	1.6	110	225	PA66HS	Black (BK)	1–5
118-00067	**T120ROS**	385	7.6	5.0	105	535	PA66HS	Natural (NA)	6–10
118-00066	**T120ROS**	385	7.6	5.0	105	535	PA66HS	Black (BK)	6–10
Polyamide 6.6 V0-HOI									
118-00079	**T18ROS**	100	2.5	1.6	20.0	80	PA66V0-HOI	White (WH)	1–3, 5
118-00080	**T30LOS**	200	3.4	1.6	50.0	135	PA66V0-HOI	White (WH)	1–3, 5
118-00081	**T50M0S**	245	4.6	1.6	66.0	225	PA66V0-HOI	White (WH)	1–5
118-00082	**T120ROS**	385	7.6	5.0	105	535	PA66V0-HOI	White (WH)	6–10
Polyamide 4.6									
118-05078	**T50ROS**	200	4.6	1.6	50.0	225	PA46	Grey (GY)	1–5

All dimensions in mm. Subject to technical changes.

Other materials available on request.

Please note! Not all products listed on this page may have this approval.
For product specific approvals please refer to the Appendix.

Cable Ties for high temperature application up to +240°C

• PEEK Ties

Features and Benefits

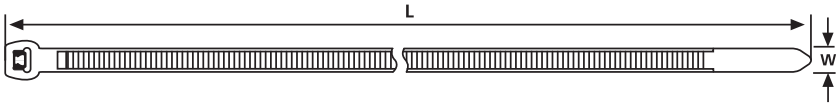
PEEK Ties will withstand temperatures from -55° C up to +260° C. Their chemical resistance, even against acid and gamma radiation is excellent. Furthermore PEEK Ties have high abrasion resistance. With as little as 4.5mm² strap cross-section it holds a tensile strength of 230N but needs only 6N insertion force. The design offers a good ratio weight to tensile strength. The contoured head takes up less space therefore usage in areas with space restrictions are ideal. Due to the outside serration PEEK Ties are minimising any indentation or damage to cable insulation.

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

Application

The PEEK Tie has been designed for the Ministry of Defence and Aircraft industry in co-operation with leading companies. With the properties this product claims it is ideal for high temperature applications. This performance will be well appropriate also for the drilling industry, railway, offshore or automotive industry. The PEEK Tie is an extraordinary product. It combines the mechanical performance and resistance to environmental influence of a metal tie with the ease of use of a polyamide cable tie.

Please find more PEEK products for your system solutions:
Foot Part P1SFT65, see page 133, Screw Mount CTAM, see page 172.



PEEK Ties

Material Data

Material	**Polyetheretherketone (PEEK)**
Operating Temperature	**-55 °C to +240 °C**
Flammability	**UL94 V0**

LFH Limited Fire Hazard

RoHS

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour	Application Tool
Outside serrated									
118-00032	**PT2A**	145	3.4	4.0	35.0	230	PEEK	Beige (BGE)	MK7, MK7P
Inside Serrated									
111-01235	**PT220**	220	4.7	8	56	380	PEEK	Light Beige (LTBGE)	MK7, MK7P, MK9, MK9P

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval.
For product specific approvals please refer to the Appendix.

Cable tie with 90° angled head

• V-Series

Features and Benefits

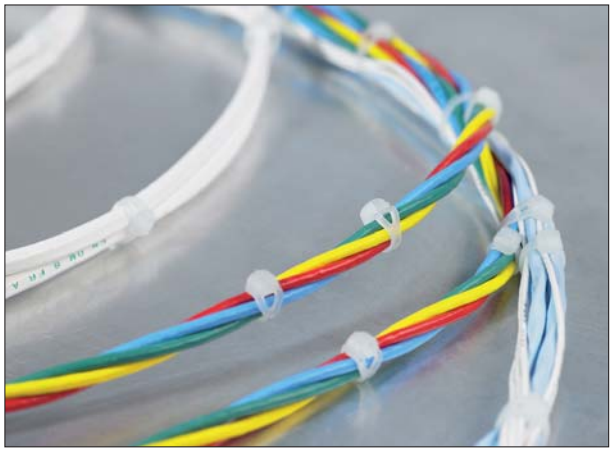
V-Series is the consequent advancement of HellermannTyton's outside serrated cable ties.

- 90° angled head
- easy and parallel insertion
- good fit to bundles, tubes, harness etc.
- low and rounded profile head
- less height above the bundle
- no damage of parallel routed bundles
- outside serrated cable tie
- smooth surface to the bundle, no damage of insulation
- safe in use and personal protection
- up to 20% higher tensile strength compared to other ties with similar strap cross-section

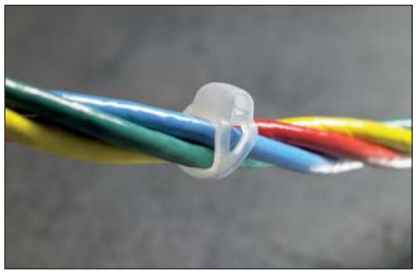
Application

Its outstanding properties allows access to all industry markets.
V-Series is perfect

- for use in applications with restricted space
- to bundle cables in camera and alarm systems
- for cable routing in Automation systems (Remote I/O Systems)
- for parallel bundles
- for installation/ mainly subsequent installion in switch cases
- smooth geometry and round head avoids snag on the back of the hand
- bundles which have to be fed through a grommet or ductwork for cables
- easy to handle due to the lentiform head

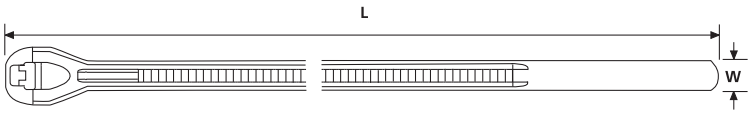


V-Series is perfect for parallel bundles.



V-Series - less hight above the bundle.

Outside serration means no damage of insulation.



V-Series

Material Data

Material	**Polyamide 6.6 Heat Stabilised (PA66HS)**
Operating Temperature	**-40 °C to +105 °C continuous, (+145 °C for 500 h)**
Flammability	**UL94 V2**

HF halogenfree RoHS

Material Data

Material	**Polyamide 4.6 (PA46)**
Operating Temperature	**-40 °C to +150 °C for 5000 h, (+195 °C for 500 h)**
Flammability	**UL94 V2**

LFH Limited Fire Hazard RoHS

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour	Application Tool
118-00074	**V100R**	102.5	2.45	20	100	PA66HS	Natural (NA)	1–3, 5
118-00089	**V150R**	150	3.3	35	150	PA66HS	Natural (NA)	1–3, 5
118-00109	**V100R**	102.5	2.45	20	100	PA46	Grey (GY)	1–3, 5
118-00107	**V150R**	150	3.3	35	150	PA46	Grey (GY)	1–3, 5

All dimensions in mm. Subject to technical changes.

Cable ties with low profile head

- **PE-Series E.D.F. approved**
- **RPE-Series releasable E.D.F. approved**

Features and Benefits

These cable ties are "outside serrated", presenting a smooth surface to the cable bundle. This, combined with the width of the ties, gives a broad contact area with the cable, avoiding any problems with damage to the insulation. The PE/RPE ranges have the benefit of EDF (French Electricity Board) approval. The "Low Profile" design of the head allows for use in applications with restricted space.
The RPE ties are releasable, reusable allowing for the addition or removal of cables after installation.

Application

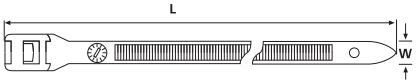
Designed primarily for use within the electrical supply industry these ties are particularly useful in areas with limited space, due to their low profile 'parallel entry' closure. Particularly suitable for outdoor use as they are manufactured from "UV" resistant polyamides. Coloured versions of PE400 are ideal for securing foam padding to playground equipment, by effectively applying the tie 'inside out'. This ensures there are no sharp edges and ultimate safety. PE400 can also be colour matched for any application.

RPE, PE Series.

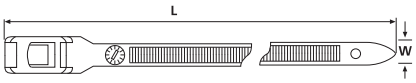
Material Data

Material	**Polyamide 6.6 Heat and UV Stabilised (PA66HSW)**
Operating Temperature	**-40 °C to +85 °C Continuous, (+105 °C for 500 h)**
Flammability	**UL94 V2**

HF halogenfree RoHS



PE Series



RPE Series

Material Data

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

HF halogenfree RoHS

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour	Application Tool
112-18060	**PE180**	180	9.0	42.0	445	PA66HSW	Black (BK)	6–10, MK10-SB
112-53060	**PE530**	535	9.0	146	445	PA66HSW	Black (BK)	6–10, MK10-SB
112-18100	**PE400**	400	9.0	116	445	PA66	Green (GN)	6–10, MK10-SB
112-18101	**PE400**	400	9.0	116	445	PA66	Blue (BU)	6–10, MK10-SB
112-18102	**PE400**	400	9.0	116	445	PA66	Red (RD)	6–10, MK10-SB
112-18103	**PE400**	400	9.0	116	445	PA66	Yellow (YE)	6–10, MK10-SB
Releasable								
112-27560	**RPE275**	275	9.0	69.0	445	PA66HSW	Black (BK)	6–10, MK10-SB
112-35060	**RPE350**	350	9.0	92.0	445	PA66HSW	Black (BK)	6–10, MK10-SB

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval.
For product specific approvals please refer to the Appendix.

Cable Ties Outside Serrated

Cable ties with low profile head

• LPH-Series

Features and Benefits

These cable ties are "outside serrated", presenting a smooth surface to the cable bundle and avoiding any problems with damage to the insulation, the width of the ties gives a broad contact area with the cable, again minimising the risk of damage. The PE/RPE ranges have the benefit of EDF (French Electrivcity Board) approval. The "Low Profile" design of the head allows for use in applications with restricted space. The RP ties are releasable and reusable allowing for the addition or removal of cables after installation.

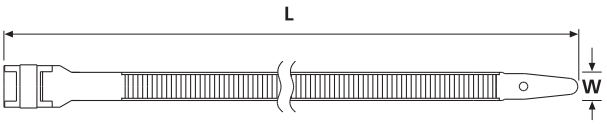
Application

Designed primarily for use within the electrical supply industry these ties are particularly useful in areas with limited space, e.g. cable bundling in shafts and are particularly suitable for outdoor use.

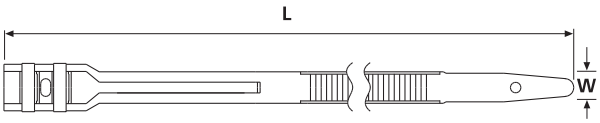
LPH Series.

Material Data

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



LPH175 Series



LPH275 Series, LPH350 Series

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour	Application Tool
112-00203	**LPH175**	175	9	40.0	310	PA66	Black (BK)	6–10, MK10-SB
112-00303	**LPH275**	265	9	62.0	480	PA66	Black (BK)	6–10, MK10-SB
112-00403	**LPH350**	355	9	92.0	480	PA66	Black (BK)	6–10, MK10-SB

All dimensions in mm. Subject to technical changes.

Please note! Not all products listed on this page may have this approval.
For product specific approvals please refer to the Appendix.