



## One Piece Fixing Ties

One Piece Fixing Ties bring together a solution for the need to bundle a product whilst at the same time providing a fixing solution. HellermannTyton's one piece fixing ties offer the ideal combination of high specification materials and superior design to give the perfect solution for both bundling and installation of cable bundles, hoses or pipes. Long acknowledged as the market leader for innovative fixings, HellermannTyton has now met the challenges set by the automotive, aviation, domestic appliance and electrical industries by combining the best "fixing design" with the best "cable tie design" – to produce the new One Piece Fixing Ties.



The additional seal protects against the ingress of moisture or dirt.

## One Piece Fixing Ties with Arrowhead and Disc

### Features and Benefits

A simple one piece bundling and fixing tie with an arrowhead mount. When inserted into the hole the arrowhead locks into place and the "disc", between the fixing and the head of the cable tie, covers the hole and minimises the ingress of dust, dirt and water, whilst adjusting for variations in panel thickness thereby ensuring a secure fixing at all times.

The RT versions are releasable and reusable, ideal for the removal or addition of cables after the initial installation is complete.

The T50SST type has a small "tab" placed below the head which gives additional protection against axial forces and is particularly useful to assist retention on convoluted tubing.

### Application

With a diverse range of fixing possibilities this range of fixing ties are ideal for use in many different industries, for example: automotive, aerospace, white goods manufacture and panel building.



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



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

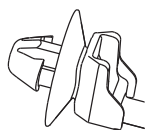




### One Piece Fixing Ties with Arrowhead and Disc



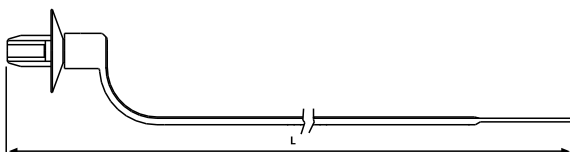
The flexible 'discs' adjust to take up variations in panel thickness – ensuring a firm fixing at all times.



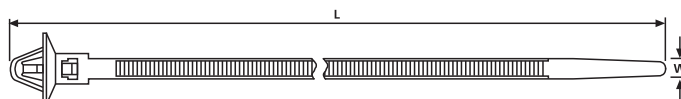
Common headfixing design.

#### Material Data

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



Special design without a gap between head and bundle; T50MD7.



One piece fixing tie with arrowhead and disc, standard design.

#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour
126-01401	T50SD6	160	5.0	31.0	18.0	180	6.3-7.5	0.6	1.8	PA66	Natural (NA)
111-85350	T50SD6	160	5.1	31.0	18.0	225	6.3-7.5	0.6	1.2	PA66HS	Black (BK)
126-00015	T50SDOP*	160	5.0	30	22.0	225	6.2x12.2	0.7	2.0	PA66HS	Black (BK)
126-01601	T50SDOR*	160	5.0	30	22.0	225	6.2x12.2	0.5	1.5	PA66HS	Black (BK)
126-02300	T50SST5	170	4.6	31.0	16.2	225	6.1-6.5	0.7	1.5	PA66	Natural (NA)
126-00017	T50SST5	170	4.6	31.0	16.2	225	6.1-6.5	0.7	1.5	PA66HS	Black (BK)
150-35395	T50SST5	170	4.6	31.0	16.2	225	6.1-6.5	0.7	1.5	PA46	Grey (GY)
111-85850	T50MD7	225	5.0	59.0	16.0	225	6.8-7.2	0.8	2.0	PA66HS	Black (BK)
126-03100	T50SOSSFT6.5E-MD	160	4.6	35.0	16.0	225	6.3-6.7	0.6	1.8	PA66HS	Green (GN)
156-00264	T50SOSSFT6.5E-MD	160	4.6	35.0	16.0	225	6.3-6.7	0.6	1.8	PA66HS	Black (BK)
126-03102	T50SOSSFT6.5E	160	4.6	35.0	16.0	225	6.3-6.7	1.9	2.5	PA66HS	Black (BK)
Releasable											
111-85480	RT50SD6	160	5.0	31.0	18.0	180	6.3-7.5	0.6	1.8	PA66HS	Black (BK)

All dimensions in mm. Subject to technical changes.

\* for oval hole



## One Piece Fixing Tie with Arrowhead

### Features and Benefits

The arrowhead is simply pushed through the panel and locks into place, the design of the arrowhead (without "legs") ensures that the minimum amount of space is used, and yet offers a firm, secure fixing.

### Application

The arrowhead design allows these ties to be used in areas with limited space.



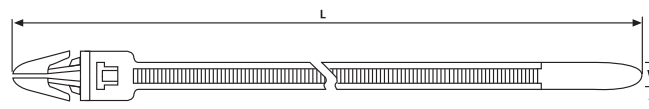
The arrowhead design allows these ties to be used in areas with limited space.

Application Tool	Registration Numbers
MK3SP	1
MK3PNSP2, MK7P	2
MK7	3
MK7HT	4
MK20	5
MK6	6
MK9P, MK6PN	7
MK9	8
MK9HT	9
MK21	10

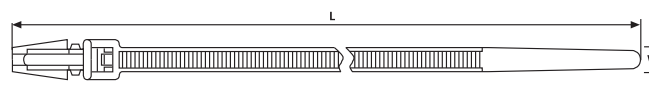
For more information, please turn to page 410.

### Material Data

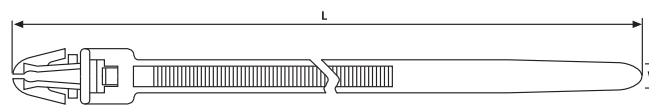
Material	<b>Polyamide 6.6 Heat Stabilised (PA66HS)</b>
Operating Temperature	<b>-40 °C to +105 °C Continuous, (+145 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



T30RSF



T50RSF



T50RSF(U)

### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour	Application Tool
111-85603	T30RSF(U)	161	3.6	31.0	135	4.8-5.6	0.9	2.36	PA66	Natural (NA)	1-3, 5
111-85610	T30RSF(U)	161	3.6	31.0	135	4.8-5.6	0.9	2.3	PA66HS	Black (BK)	1-3, 5
111-85789	T50RSF(U)	210	4.7	44.0	225	6.4-7.1	1.0	3.56	PA66	Natural (NA)	1-3, 5
111-85799	T50RSF(E)	210	4.6	50.0	225	6.2-6.4	2.9	3.1	PA66	Natural (NA)	1-3, 5
126-01001	T50RSF(E)	210	4.6	50.0	225	6.2-6.4	2.9	3.1	PA66	Black (BK)	1-3, 5

All dimensions in mm. Subject to technical changes.



Please Note for Product Specific Approvals please refer to the Appendix



## One Piece Fixing Ties with Arrowhead

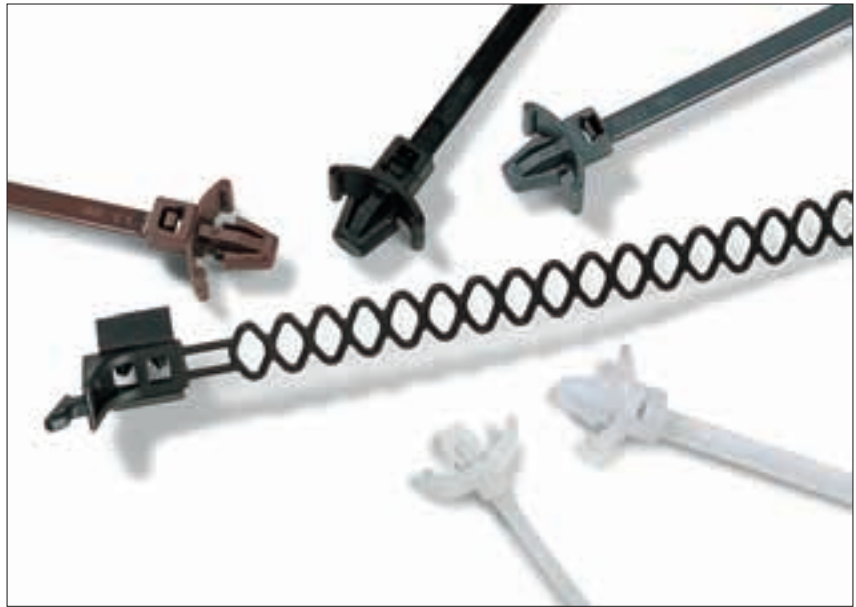
### Features and Benefits

The arrowhead design, in conjunction with the supporting “legs”, ensures a firm and secure fixing. The “legs” take up any variation in panel thickness enabling one part to suit many applications.

Both the RT and FBS versions are releasable and reusable, with the FBS type having the added feature of a ladder type strap as opposed to the conventional serrated strap – this ladder type strap has the benefit of being very flexible.

### Application

For the bundling and fixing of cable harnesses, pipes and hoses in the automotive, aerospace, white goods industries and panel building.





A wide range of arrowhead fixing ties which are suitable for panel thicknesses of 0.5 mm to 4.5 mm and hole diameters of 4.4 mm to 8.0 mm.



Application Tool	Registration Numbers
MK3SP	1
MK3PNSP2, MK7P	2
MK7	3
MK7HT	4
MK20	5
MK6	6
MK9P, MK6PN	7
MK9	8
MK9HT	9
MK21	10

For more information, please turn to page 410.



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



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

Material Data	
Material	<b>Polyamide 6.6 UV Resistant (PA66W)</b>
Operating Temperature	<b>-40 °C to +85 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>

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



## One Piece Fixing Ties with Arrowhead

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour	Application Tool
111-85519	<b>T18RSF</b>	100	2.5	16.0	80	4.6-4.8	1.0	3.0	PA66	Natural (NA)	1-3, 5
111-85560	<b>T18RSF</b>	100	2.5	16.0	80	4.6-4.8	1.0	3.0	PA66W	Black (BK)	1-3, 5
111-85719	<b>T50SSF</b>	160	4.7	25.0	225	6.0-6.4	1.0	3.0	PA66	Natural (NA)	1-3, 5
126-01104	<b>T50SSF</b>	160	4.7	25.0	225	6.0-6.4	1.0	3.0	PA66HS	Natural (NA)	1-3, 5
126-00032	<b>T50SSF</b>	160	4.7	25.0	225	6.0-6.4	1.0	3.0	PA66HS	Black (BK)	1-3, 5
111-85729	<b>T50RSF</b>	200	4.7	45.0	225	6.0-6.4	1.0	3.0	PA66	Natural (NA)	1-3, 5
111-85329	<b>T50VSL5</b>	100	4.6	16.0	225	6.1-6.3	1.0	2.6	PA66	Natural (NA)	1-3, 5
111-85339	<b>T50SSL5</b>	135	4.6	27.0	225	6.1-6.5	0.8	2.7	PA66	Natural (NA)	1-3, 5
111-85349	<b>T50SSL5</b>	135	4.6	27.0	225	6.1-6.5	0.8	2.7	PA66	Natural (NA)	1-3, 5
126-02207	<b>T50SSL5</b>	135	4.6	27.0	225	6.1-6.5	0.8	2.7	PA66HS	Black (BK)	1-3, 5
111-85395	<b>T50SSL5</b>	135	4.6	27.0	225	6.1-6.5	0.8	2.7	PA46	Grey (GY)	1-3, 5
126-00005	<b>T50SL5</b>	165	4.6	34.0	225	6.1-6.3	0.8	2.7	PA66HIRHS	Black (BK)	1-3, 5
111-85369	<b>T50SL5</b>	165	4.6	34.0	225	6.1-6.3	0.8	2.7	PA66	Natural (NA)	1-3, 5
126-00001	<b>T50SL5</b>	165	4.6	34.0	225	6.1-6.3	0.8	2.7	PA66HS	Black (BK)	1-3, 5
111-85469	<b>T50SL6</b>	165	4.6	34.0	225	6.3-7.5	0.5	2.5	PA66	Natural (NA)	1-3, 5
111-85460	<b>T50SL6</b>	165	4.6	34.0	225	6.3-7.5	0.5	2.5	PA66	Black (BK)	1-3, 5
111-85479	<b>T50SL7</b>	165	4.6	34.0	225	6.9-7.1	0.8	2.5	PA66	Natural (NA)	1-3, 5
126-00027	<b>T50SL7</b>	165	4.6	34.0	225	6.9-7.1	0.8	2.5	PA66	Black (BK)	1-3, 5
111-85781	<b>YQR10050</b>	165	4.6	34.0	225	6.9-7.1	1.6	4.0	PA66	Brown (BN)	1-3, 5
150-48396	<b>T80RFT6X12*</b>	228	4.6	45.0	225	6.3x12.3	0.6	3.0	PA66	Black (BK)	1-3, 5
150-48397	<b>T80RFT6X12*</b>	228	4.6	45.0	225	6.3x12.3	0.6	3.0	PA46	Grey (GY)	1-3, 5

All dimensions in mm. Subject to technical changes.

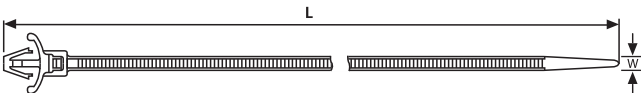
\* for slotted hole drilling



### One Piece Fixing Ties with Arrowhead

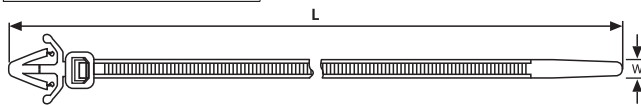
Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour
Releasable										



126-03001	<b>YQR10016</b>	165	4.6	34.0	225	6.9-7.1	1.6	4.0	PA66	Black (BK)
126-03000	<b>YQR10016</b>	165	4.6	34.0	225	6.9-7.1	1.6	4.0	PA66	Grey (GY)
115-07010	<b>RT50RSF</b>	215	4.6	50.0	225	7.8-8.2	0.6	2.5	PA66	Black (BK)
126-00011	<b>RT50SL7</b>	165	4.6	34.0	225	7.0	-	2.5	PA66	Black (BK)

Releasable



115-01900	<b>RT18RSF</b>	132	3.0	27.0	80	3.8-4.2	-	2.3	PA66	Natural (NA)
115-06960	<b>RT50SFK</b>	225	5.0	50.0	225	6.4-7.0	0.8	3.0	PA66	Black (BK)
115-00024	<b>RT50SFK</b>	225	5.0	50.0	225	6.4-7.0	0.8	3.0	PA66HS	Black (BK)

Releasable



150-26100	<b>FBS100</b>	115	10.0	27.0	-	6.3-6.7	0.7	3.9	PA66	Black (BK)
150-26140	<b>FBS140</b>	160	10.0	42.0	-	6.3-6.7	0.7	3.9	PA66	Black (BK)
150-26180	<b>FBS185</b>	200	10.0	53.0	-	6.3-6.7	0.7	3.9	PA66	Black (BK)

All dimensions in mm. Subject to technical changes.



## One Piece Fixing Ties with Arrowhead in the Strap

### Features and Benefits

The arrowhead fixing is located in the mid-section of the strap of the cable tie which ensures that the cable bundle sits directly above the fixing point, minimising the space taken.

The head of the T8ORSF tie is moulded in a raised position to ease assembly when the fixing is already in place in the panel.

The T5OSSF type has specially moulded retainers to hold battery cables parallel and firmly in place



### Application

This range of fixing ties are ideal for use in many different industries, for example: automotive, aerospace, rail and panel building.





Designed to secure battery cables the T5OSSF6.5 offers a simple and secure fixing.


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

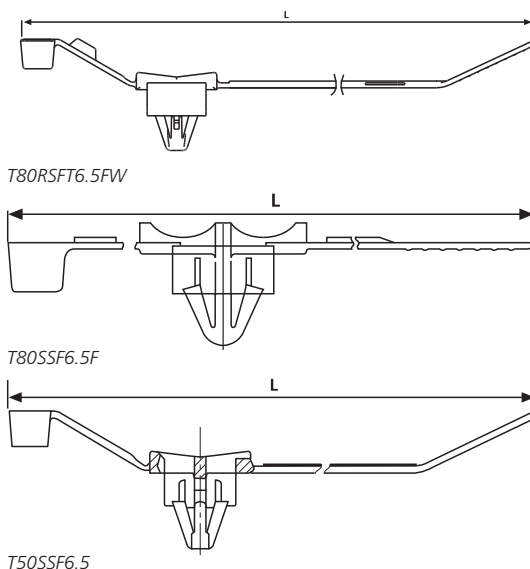



Material Data	
Material	<b>Polyamide 4.6 (PA46)</b>
Operating Temperature	<b>-40 °C to +150 °C for 5000 h, (+195 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>

 **Material specification please see page 40.**



Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour	Application Tool
150-39396	<b>T8ORSF6.5F</b>	209	4.6	45.0	300	6.3-6.5	0.6	3.0	PA66	Black (BK)	1-3, 5
150-39393	<b>T8OSSF6.5F</b>	179	4.6	43.0	300	6.3-6.5	0.6	3.0	PA66HS	Black (BK)	1-3, 5
126-02600	<b>T8ORSF6.5F</b>	209	4.6	45.0	300	6.3-6.5	0.6	3.0	PA66HS	Black (BK)	1-3, 5
150-39385	<b>T8ORSF6.5FW</b>	209	4.6	45.0	300	6.3-6.5	0.6	3.0	PA66HS	Black (BK)	1-3, 5
150-39392	<b>T8OSSF6.5F</b>	179	4.6	43.0	225	6.3-6.5	0.6	3.0	PA46	Grey (GY)	1-3, 5
150-39395	<b>T8ORSF6.5F</b>	209	4.6	45	300	6.3-6.5	0.6	3.0	PA46	Grey (GY)	1-3, 5

All dimensions in mm. Subject to technical changes.



## One Piece Fixing Ties with Arrowhead and Disc in the strap

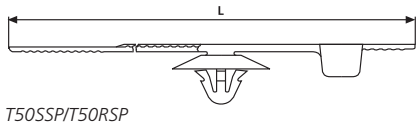
### Features and Benefits

The arrowhead fixing is located in the mid-section of the strap of the cable tie which ensures that the cable bundle sits directly above the fixing point, minimising the space taken.

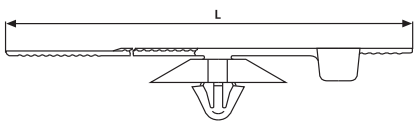
The 'disc' on types T50SSP and T50RSP completely covers the hole in the panel minimising the ingress of dust, dirt and water. The 'discs' on all three types flex to suit variations in panel thickness, ensuring a firm but secure fixing. A particular design feature of these ties is the 'tab' on the end of the head - this is to facilitate easy location and orientation of the head for assembly.

### Application

With a diverse range of fixing possibilities (from 5.7 mm to 6.5 mm hole diameters and 0.7 mm to 3.5 mm panel thickness) this range of fixing ties are ideal for use in many different industries, for example: automotive, aerospace, rail, and panel building.



T50SSP/T50RSP



T80RSFT



The "tab" on the head of the tie makes it easy to locate and lift the head for assembly.

#### Material Data

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



#### Material Data

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



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour	Application Tool
150-35932	T50SSP	120	4.6	24	18.0	225	6.0-6.5	0.7	1.3	PA66	Black (BK)	1-3, 5
150-35930	T50RSP	190	4.6	45.0	18.0	225	6.0-6.5	0.75	1.3	PA66	Black (BK)	1-3, 5
150-15493	T80RSFT	190	4.6	45.0	24.4	355	5.7-6.3	1.0	3.5	PA66	Black (BK)	1-3, 5
150-15492	T80RSFT	190	4.6	45.0	24.4	355	5.7-6.3	1.0	3.5	PA66HS	Natural (NA)	1-3, 5
126-02500	T80RSFT	190	4.6	45.0	24.4	355	5.7-6.3	1.0	3.5	PA66HS	Black (BK)	1-3, 5
150-15498	T80RSFT	190	4.6	45.0	24.4	355	5.7-6.3	1.0	3.5	PA46	Grey (GY)	1-3, 5

All dimensions in mm. Subject to technical changes.





### Cable Tie and Arrowhead Mount Assemblies

#### Features and Benefits

These two piece fixing ties are supplied ready assembled and offer a simple and versatile method of bundling and fixing cables, pipes and hoses.

The arrowhead base will easily push into pre-punched holes in panels and offers a very secure fixing. The two piece design enables the head of the tie to be orientated to the required position to ease assembly, whilst the 'disc' on the top of the arrowhead takes up variation in panel thickness ensuring a stable fixing at all times.

Available as either inside serrated or outside serrated 'standard' cable ties or 'double headed' ties.

#### Application

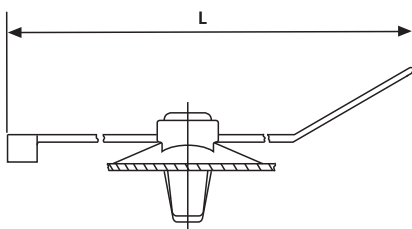
Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example: aviation, switch-gear manufacturers, white goods manufacturers.



Being a two piece assembly allows the tie head to be located in the most convenient position.

**Other dimensions available, please contact us for further information.**

Material Data	
Material	<b>Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)</b>
Colour	<b>Black (BK)</b>
Operating Temperature	<b>-40 °C to +105 °C</b>
Flammability	<b>UL94 HB</b>



Two piece fixing tie with moveable arrowhead.

Material Data	
Material	<b>Polyamide 6.6 Heat Stabilised (PA66HS)</b>
Colour	<b>Black (BK)</b>
Operating Temperature	<b>-40 °C to +105 °C Continuous, (+145 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	
										Cable Tie	Foot Part
150-13593	<b>T50SSFT6.5</b>	150	4.6	31.0	22.4	225	6.3-6.7	0.7	2.0	PA66HS	PA66HS
150-13591	<b>T50RSFT6.5</b>	200	4.6	45.0	22.4	225	6.3-6.7	0.9	2.0	PA66HS	PA66HS
150-37691	<b>T50RSFT6.5D18</b>	200	4.6	45.0	18.0	225	6.5-6.8	0.4	1.6	PA66HS	PA66HIRHS
117-05160	<b>T50RDHSFT6.5</b>	210	4.7	45	22.4	225	6.3-6.7	0.7	2.0	PA66HS	PA66HS
150-13596	<b>T80ISFT6.5</b>	300	4.6	81.0	22.4	355	6.3-6.7	0.7	2.0	PA66HS	PA66HS

All dimensions in mm. Subject to technical changes.



### Rivet Fixing Ties

#### Features and Benefits

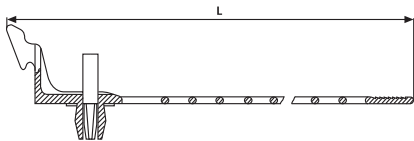
These ties are simply installed by pushing the rivet part of the tie into a hole and firmly tapping the rivet pin until flush to the surface. The pin expands the wings of the rivet and the tie is firmly locked in place.

All three versions listed are releasable and reusable allowing for the removal or addition of cables after installation.

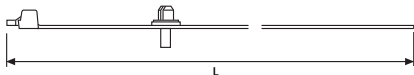
The RELF and RI ranges are conventional 'serrated' cable ties, whilst the FBR range have a 'ladder-type' design which is locked by stretching the strap over the head of the tie. The design of the FBR gives a very flexible strap.



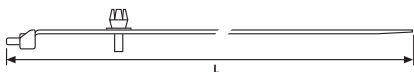
FBR cable ties have a flexible 'ladder' design of strap - Ideal for secure fixing into thin panels (up to 2.5 mm thick).



Fixing ties type FBR



Fixing ties type RELF



Fixing ties type RI

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



Material Data	
Material	<b>Polyamide 12 (PA12)</b>
Operating Temperature	<b>-40 °C to +85 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 HB</b>



Material Data	
Material	<b>Polyamide 6.6 High Impact Modified (PA66HIR)</b>
Operating Temperature	<b>-40 °C to +80 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 HB</b>



Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour
150-27100	<b>FBR6/100</b>	115	10.0	27.0	–	6.2-6.5	0.8	2.4	PA66	Black (BK)
150-27140	<b>FBR6/140</b>	160	10.0	42.0	–	6.2-6.5	0.8	2.4	PA66	Black (BK)
150-27180	<b>FBR6/185</b>	200	10.0	53.0	–	6.2-6.5	0.8	2.4	PA66	Black (BK)
150-27110	<b>FBR7/100</b>	115	10.0	27.0	–	7.2-7.5	0.8	2.4	PA66	Black (BK)
150-27150	<b>FBR7/140</b>	160	10.0	42.0	–	7.2-7.5	0.8	2.4	PA66	Black (BK)
150-27190	<b>FBR7/185</b>	200	10.0	53.0	–	7.2-7.5	0.8	2.4	PA66	Black (BK)
131-31710	<b>RELF170</b>	180	8.0	44.0	180	6.5	2.5	2.5	PA66	Black (BK)
115-40902	<b>RELF170</b>	180	8.0	44.0	180	6.3	2.5	2.5	PA66HIR	Black (BK)
131-14080	<b>RI 80</b>	80	7.0	16.0	265	6.9-7.1	0.8	2.2	PA12	Black (BK)
131-14120	<b>RI 120</b>	120	9.0	28.0	265	6.9-7.1	0.8	2.2	PA12	Black (BK)
131-14160	<b>RI 160</b>	160	9.0	41.0	265	6.9-7.1	0.8	2.2	PA12	Black (BK)

All dimensions in mm. Subject to technical changes.



## One Piece Fixing Ties with Fir Tree Mount

### Features and Benefits

This one piece cable tie with fir tree fixing offers a simple and easy to use method of bundling and fixing cables, pipes and hoses. The design of the fir tree ensures a positive and secure fixing into panels from 0.8mm to 7.0 mm deep or threaded blind holes.

The "disc" on the top of the fir tree covers the hole and minimises the ingress of dust, dirt and water.

Type REL are releasable and reusable and are ideal for the removal or addition of cables after the initial installation is completed.

### Application

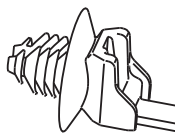
Primarily designed for fixing cable harnesses in the automotive industry their simplicity and ease of use has resulted in these parts being used in many other industries, for example: aviation, switch-gear manufacture and white goods.



Ideal for use in deep panels and threaded, blind holes.

#### Material Data

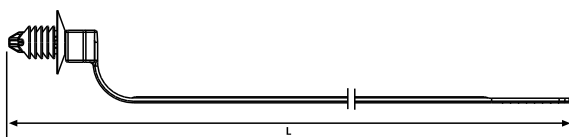
Material	<b>Polyamide 6.6 (PA66)</b>
Operating Temperature	<b>-40 °C to +85 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



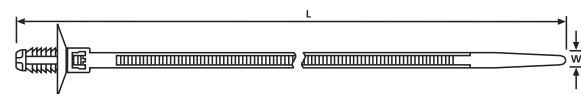
Common headfixing design.

#### Material Data

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



Special design without a gap between head and bundle; FT220DP7.



One piece fixing tie with fir tree mount, standard design.

#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour
150-55610	<b>T18RDP5</b>	110	2.5	20.0	13.0	80	4.9-5.1	3.0	4.0	PA66	Black (BK)
155-05800	<b>T50SOSFT6E</b>	160	4.6	35.0	–	150	6.5-7.0	0.75	3.0	PA66HIRHS	Black (BK)
157-01104	<b>T50SDP6</b>	170	5.0	31	22.0	225	6.3-7.1	0.8	7.0	PA66	Natural (NA)
150-55550	<b>T50SDP6</b>	170	5.0	31	22.0	225	6.3-7.1	0.8	7.0	PA66HIRHS(S)	Black (BK)
150-01700	<b>FT220DP7</b>	230	4.7	40.0	16.0	225	6.8-7.2	0.8	5.0	PA66	Black (BK)
Releasable											
150-55500	<b>REL30SDP6</b>	170	5.0	31.0	22.0	135	6.3-7.0	3.0	7.0	PA66	Black (BK)

All dimensions in mm. Subject to technical changes.



## Cable Tie and Fir Tree Mount Assemblies

### Features and Benefits

These two piece fixings are supplied ready assembled and offer a simple and versatile method of bundling and fixing cables.

The fir tree base will easily push into pre-punched holes in panels or threaded, blind holes, and offers a very secure fixing.

The two piece design enables the head of the tie to be orientated to the required position to ease assembly, whilst the "disc" on the top of the fir tree covers the hole and minimises the ingress of dust, dirt and water.

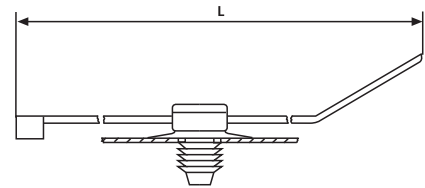
### Application

Primarily designed for fixing cable harnesses in the automotive industry their simplicity and ease of use, has resulted in these parts being used in many industries, for example: aviation, switch gear manufacture and white goods.



These Fir Tree fixings can also be used in threaded, blind holes.

Other dimensions available on request. Please contact us.



One piece fixing tie with fir tree mount

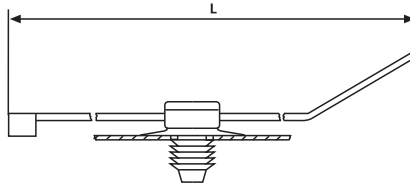
Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Colour	Material	
											Cable Tie	Foot Part
150-55940	T30RFT5	150	3.6	34.0	16.0	135	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
150-55850	T30RFT5	148	3.6	34.0	16.0	135	4.5-5.0	0.7	3.0	Black (BK)	PA66HS	PA66HIRHS
150-55948	T30RFT5	150	3.6	34.0	16.0	135	4.5-5.0	0.7	3.0	Natural (NA), Grey (GY)	PA46	PA46
150-55942	T30LRFT5	260	3.3	61.0	16.0	180	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
150-55941	T50RFT5	200	4.6	45.0	16.0	225	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
156-00025	T50RFT5	200	4.6	45.0	16.0	225	4.5-5.0	0.7	3.0	Black (BK)	PA66HS	PA66HIRHS
150-55943	T50SFT5	150	4.6	34.0	16.0	225	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
150-09110	T18RFT6	100	2.5	20.0	16.0	80	6.4-7.1	0.75	3.0	Black (BK)	PA66	PA66
150-77935	T18RFT6	100	2.5	20.0	16.0	80	6.4-7.1	0.75	3.0	Black (BK)	PA66W	PA66
150-31097	T30LFT6LG	190	3.6	45.0	16.0	135	6.4-7.1	0.75	6.0	Black (BK)	PA66	PA66HIRHS
150-77932	T30LRFT6	260	3.3	65.0	16.0	180	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-77950	T30RFT6	150	3.6	34.0	16.0	135	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-31090	T30RFT6LG	148	3.6	35.0	16.0	135	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
150-77936	T50RDHFT6	210	4.7	19.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
156-05308	T50RFT6	200	4.6	45.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66	PA66
150-77938	T50RFT6	200	4.6	45.0	16.0	225	6.4-7.1	0.75	3.0	Grey (GY)	PA46	PA46
150-77941	T50RFT6	200	4.6	45.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66
156-05300	T50RFT6	200	4.6	45.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HS
150-31091	T50RFT6LG	200	4.6	44.0	16.0	225	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
156-00076	T50ROSFT6	200	4.6	45.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
156-01500	T50SFT6	150	4.6	31.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66	PA66

All dimensions in mm. Subject to technical changes.



## Cable Tie and Fir Tree Mount Assemblies



One piece fixing tie with fir tree mount

Other dimensions available on request. Please contact us for further information.

### Material Data

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



### Material Data

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



### Material Data

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



Technical Table

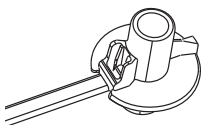
Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Colour	Material	
											Cable Tie	Foot Part
150-77933	<b>T50SFT6</b>	150	4.6	31.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66
150-31093	<b>T50SFT6LG</b>	160	4.6	35.0	16.0	225	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
156-05902	<b>T50ROSFT6SD</b>	200	4.6	46.0	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIR
150-77934	<b>T80LFT6</b>	390	4.6	108	16.0	355	6.4-7.0	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-77937	<b>T80IFT6</b>	300	4.6	81.0	16.0	355	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-31096	<b>T80IFT6LG</b>	300	4.6	81.0	16.0	355	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
156-01503	<b>T50SFT7</b>	160	4.6	31.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
111-85870	<b>T50RFT7</b>	200	4.6	45.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66HS	PA66HS
156-05312	<b>T50RFT7</b>	200	4.6	45.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
156-05311	<b>T50RFT7</b>	200	4.6	45.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66HS	PA66HS
111-05350	<b>T50IFT7</b>	300	4.6	85.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
156-00903	<b>T50IFT7</b>	300	4.6	81.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
150-00700	<b>T50IFT7</b>	300	4.6	81.0	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66HS	PA66HS
156-05320	<b>T50RFT8</b>	200	4.6	45.0	16.0	225	7.7-8.0	0.8	6.0	Black (BK)	PA66	PA66
111-85880	<b>T50RFT8</b>	200	4.6	45.0	16.0	225	7.7-8.0	0.8	6.0	Black (BK)	PA66HS	PA66HS
156-00044	<b>T50RFT8</b>	200	4.6	45.0	16.0	225	7.7-8.0	0.8	6.0	Black (BK)	PA66HS	PA66HS
156-00200	<b>T120IFT9</b>	300	7.6	75.0	20.0	535	8.8-9.4	4.0	8.0	Black (BK)	PA66HIR(S)	PA66HIR(S)
156-05301	<b>T50RFT10</b>	200	4.6	45.0	18.0	225	9.7-10.0	0.8	5.0	Black (BK)	PA66	PA66
111-85810	<b>T50RFT10</b>	200	4.6	45.0	18.0	225	9.7-10.0	0.8	5.0	Black (BK)	PA66HS	PA66HS

All dimensions in mm. Subject to technical changes.



### T50SOSSBH5E

This cable tie offers three distinct benefits to the user. Firstly it offers the opportunity to retain insulation material. Secondly, it allows cables, pipes or hoses to be bundled. Thirdly it has a simple "soft push" mechanism which allows it to be installed onto a weld stud without the use of any tools. The unique head design allows the cable tie to firmly hold bundles as small as 1.6 mm diameter.



T50SOSSBH5E



The new head design offers additional fixing of soft materials.

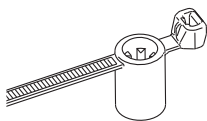
Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
155-05701	T50SOSSBH5E	165	4.6	35.0	225	5	PA66HS	Black (BK)

All dimensions in mm. Subject to technical changes.

### T50SSBS50TE

Using the "soft push" technology, this inside serrated tie is mounted on the top of the stud. The additional height gained by this design gives a clear "stand off" from the panel. Ideal applications include mass transit industries, panel builders, and white goods manufacturers.



T50SSBS50TE



The T50SSBS50TE allows very precise routing of cable bundles.



**Material specification  
please see page 40.**

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
155-30602	T50SSBS50TE*	160	4.6	35.0	200	5	PA66HS	Black (BK)

All dimensions in mm. Subject to technical changes.

\* Since the bundled cables lie directly above or on the weld stud, care must be taken to ensure that the length of the weld stud does not exceed the height of the sheath. To avoid damage, we recommend a maximum weld stud length of 16.5 mm.



### T50SOSSB5HEC

### T50SOSSB6 High E

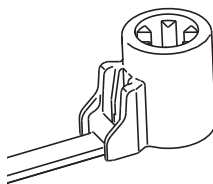
The special oval shape of the fixing on this stud mounted fixing tie provides a 5-6 mm lateral adjustment to cater for any misalignment of the stud or incorrect positioning of the tie on the cables. The simple “soft push” mechanism allows for easier installation onto a weld stud without the use of any tools.

### T50SOSSB5E

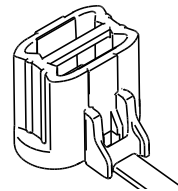
Providing an especially strong fixing method, the design of this fixing tie offers the “soft push” mounting technology with the ability to mount the cables very close to the fixing stud. The outside serrations present a smooth surface to the cables preventing chafe and damage to the insulation, especially in mass transit applications.



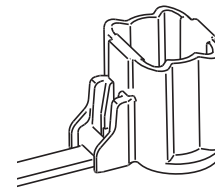
This outside serrated cable tie with weld stud mounting keeps the cables close to the fixing stud.



T50SOSSB5E



T50SOSSB5HEC



T50SOSSB6HE

### T50SOSWSP5E

The unique shape of the head on this fixing tie provides a 5-6 mm lateral adjustment to cater for any misalignment of the stud or incorrect positioning of the tie on the cables. The low profile of the fixing allows for several ties to be installed one on top of the other on the same stud, to accommodate different cable routings.

This is both space saving and versatile.



T50SOSWSP5E, parallel installation using two fixing ties.



T50SOSWSP5E

**Material specification  
please see page 40.**

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
155-05400	T50SOSSB5HEC	160	4.6	35.0	170	5	PA66HS	Black (BK)
155-46302	T50SOSSB6HE	160	4.6	35.0	170	6	PA66HS	Black (BK)
155-12300	T50SOSSB5E	160	4.6	35.0	225	5	PA66HS	Black (BK)
155-23601	T50SOSWSP5E	163	4.6	35.0	200	5	PA66HS	Black (BK)

All dimensions in mm. Subject to technical changes.



## Wide Strap Heavy Duty Stud Mount Cable Ties

### Features and Benefits

The wide strap stud mount cable tie minimizes pinching on soft bundles and features a low profile head to provide compact bundling. A thinner strap provides increased flexibility for improved ergonomics. Available with a 6 mm and 9 mm stud mount, the wide strap tie utilizes a strong hinge between the stud mount and head to provide superior holding ability on a threaded stud.

- Wide strap to minimize pinching of soft hoses and convoluted tubing
- Clamping rails to increase grip on round bundles
- Wide variation of bundle diameters: 9.5 mm - 104.7 mm
- Flexible strap
- Flexible hinge
- Mount provides low insertion and high extraction forces

### Application

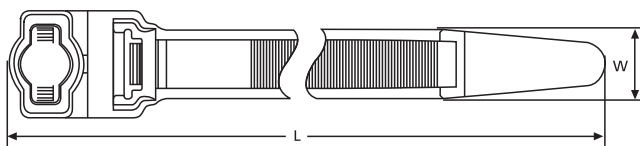
Primarily designed for use in the automotive- or truck industry, these parts can be used in a wide variety of industries and applications where 6 mm/9 mm weld studs or 6 mm/9 mm ISO bolts are used and cables need to be bundled and secured.



The wide strap stud mount cable tie minimizes pinching on soft bundles.

### Material Data

Material	<b>Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)</b>
Operating Temperature	<b>-40 °C to +110 °C</b>
Flammability	<b>UL94 HB</b>



Wide Strap Heavy Duty Stud Mount Cable Ties

### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
Wide Strap Ties with 6mm Stud Mount							
157-00400	<b>WSS250</b>	246.38	12.7	57.1	534	PA66HIRHS	Black (BK)
157-00401	<b>WSI250</b>	322.58		82.5			
157-00402	<b>WSR250</b>	398.78		104.8			
Wide Strap Ties with 9mm Stud Mount							
157-00406	<b>WSS380</b>	246	12.7	57.0	534	PA66HIRHS	Black (BK)
157-00403	<b>WSS380</b>	246.38		57.1			
157-00407	<b>WSI380</b>	322		82.0			
157-00404	<b>WSI380</b>	322.58		82.5			
157-00408	<b>WSR380</b>	398		104			
157-00405	<b>WSR380</b>	398.78		104.8			

All dimensions in mm. Subject to technical changes.





## Cable Ties for Weld Studs

### Features and Benefits

This one piece cable tie and fixing offers a simple and easy to use method of bundling and fixing cables, pipes and hoses. The design of the stud fixing ensures simple mounting while giving a positive and secure fixing.

A variety of designs gives the choice of a soft 'push fit' or 'hammer fit'. Both designs give excellent 'pull off' forces in relation to the application forces.



FBB one piece fixing ties for weld studs, can be easily removed by unscrewing in an anti-clockwise direction.



**Material specification  
please see page 40.**

#### Material Data

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



#### Material Data

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



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
150-28100	<b>FBB100</b>	110	10.0	23.0	–	PA66	Black (BK)
150-28140	<b>FBB140</b>	142	10.0	38.0	–	PA66	Black (BK)
150-28180	<b>FBB185</b>	200	10.0	50.0	–	PA66	Black (BK)
150-29100	<b>FBB100M</b>	110	10.0	23.0	–	PA66	Black (BK)
150-29140	<b>FBB140M</b>	145	10.0	38.0	–	PA66	Black (BK)
150-29180	<b>FBB185M</b>	200	10.0	50.0	–	PA66	Black (BK)
151-01000	<b>SBR5</b>	220	6.0	40.0	300	PA66	Black (BK)
131-60060	<b>SBR5</b>	220	6.0	40.0	300	PA66HS	Black (BK)
131-60058	<b>SBR85</b>	215	6.0	40.0	300	PA46	Grey (GY)

All dimensions in mm. Subject to technical changes.



### Dual Clamp Ties

#### Features and Benefits

Dual clamp ties are designed to provide parallel separation between hoses, wires, cables and tubing, protecting them from abrasion. These ties have an optional mounting hole for securing bundles along the chassis of trucks, trailers, and heavy duty equipment. The unique, one-piece design features the dual head centered on the strap.

Available in two lengths, the dual clamp ties accommodate bundles ranging from 6 mm to 58 mm. The flexible wide straps minimize pinching of hoses and convoluted tubing. The straps are also releasable.

#### Application

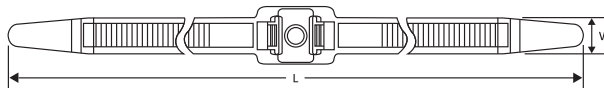
Primarily designed for use in the automotive/truck industry, these parts can be used in a wide variety of industries and applications where 6 mm/9 mm weld studs or 6 mm/9 mm ISO bolts are used and cables need to be bundled and secured.



Dual clamp ties are designed to provide parallel separation between hoses, wires, cables and tubing, protecting them from abrasion.

#### Material Data

Material	<b>Polyamide 6.6 High Impact Modified (PA66HIR)</b>
Operating Temperature	<b>-40 °C to +80 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 HB</b>



Dual Clamp Ties

#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
115-00034	<b>DCT9</b>	330	12.7	33.0	670	6.35	PA66HIR	Black (BK)
115-00033	<b>DCT11</b>	489	12.7	58.0	670	6.35	PA66HIR	Black (BK)

All dimensions in mm. Subject to technical changes.



## Standoff Mounting Dual Clamp Ties

### Features and Benefits

HellermannTyton's standoff dual clamp tie offers the same features as the standard dual clamp tie with a standoff mount that secures the bundle away from the side of the frame rail, protecting the bundles from bolts and other protrusions.

- Wide strap minimizes pinching of soft hoses & convoluted tubing
- Clamping rails increase circumferential grip on varying bundle diameters
- Locking stud mount pawls allow for easy hand insertion
- Nut or weld nesting counter bore provides flush mounting at the base
- Socket counter bore for fastening a nut provides added retention



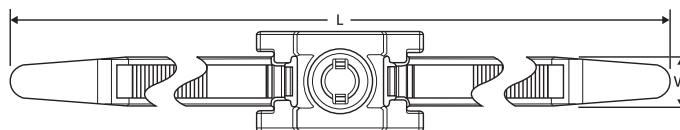
Standoff Mounting Dual Clamp Ties.

### Application

Primarily designed for use in the automotive/truck industry, these parts can be used in a wide variety of industries and applications where bundles need a standoff mounting position.

#### Material Data

Material	<b>Polyamide 6.6 High Impact Modified, Heat and UV Stabilised (PA66HIRHSW)</b>
Operating Temperature	<b>-40 °C to +110 °C</b>
Flammability	<b>UL94 HB</b>



Standoff Mounting Dual Clamp Ties

#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
117-00012	<b>SDCTR312</b>	511	12.7	58.0	445	7.94	PA66HIRHSW	Black (BK)

All dimensions in mm. Subject to technical changes.



### Cable Ties for Weld Studs

#### Features and Benefits

These weld stud fixing ties are designed to be fitted onto 5 mm studs or 5 mm ISO threaded studs. The types T50RS5, RT50RS5 and SBS9/230 are designed to be applied by hand (Soft Push). Types SB14 and SB9 are designed to be hammered onto the stud (Hard Push).

Both types give excellent "pull-off" forces in relation to the application forces.



With the RT50RS5 and the SB14/172 you can mount pipes or cables to a weld stud.



Simple fixing to a weld stud or 5mm ISO bolt.

#### Material Data

Material	<b>Polyamide 6.6 (PA66)</b>
Colour	<b>Black (BK)</b>
Operating Temperature	<b>-40 °C to +85 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Height (H2)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
111-07110	<b>T50RS5</b>	190	4.6	14.5	40.0	225	PA66	Black (BK)
115-07110	<b>RT50RS5</b>	190	4.6	14.5	40.0	225	PA66	Black (BK)
150-10901	<b>SBS9/230</b>	230	5.0	10.0	60.0	245	PA66	Black (BK)
131-80050	<b>SB9/172</b>	172	5.0	10.0	40.0	245	PA66	Black (BK)
150-10900	<b>SB9/230</b>	230	5.0	10.0	60.0	245	PA66	Black (BK)
150-10690	<b>SB14/172</b>	172	5.0	15.5	40.0	245	PA66	Black (BK)
		230	5.0	15.5	60.0	245	PA66	Black (BK)



## Cable Tie and Weld Stud Fixing Assemblies

### Features and Benefits

These two piece fixing ties consist of the cable tie from the "inside" or "outside serrated" series with the foot part for fixing to weld studs already mounted on the strap.

They are easy to press onto a 5 mm type weld stud (also suitable for M5 screws) without the need for separate application tools.

Because the foot part slides along the cable tie, the head can be rotated into the best position both during fitting and also for installation.

Series SBH5 and SBH5SD features a flat plate on the foot part which can simultaneously fix an insulation mat.

Series SB5 and SBS5 have a cable guide on the weld stud.

Series SB5 has an oval weld stud for equalisation of the cable loom if out of line with



Cable ties illustrating the variety of application methods for weld stud fixing.

### Application

Series SBH5 and SBH5SD are used mainly in the automotive industry. The SD variant is for the smallest bundle diameters, from 1.0 mm.

Suitable for bundling and fastening cables, pipes and hoses in a multitude of industries, for example: switch gear manufacture, automotive and machine manufacture.

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Material		Application Tool
							Cable Tie	Foot Part	
150-16941	<b>T30RSBH5</b>	150	3.5	31.0	30.0	135	PA66HS	PA66HS	1-3, 5
150-16942	<b>T40RSBH5</b>	175	4.0	40.0	30.0	180	PA66HS	PA66HS	1-3, 5
150-16943	<b>T50RSBH5</b>	200	4.6	45.0	30.0	225	PA66HS	PA66HS	1-5
156-05905	<b>T50ROSSBH5SD</b>	200	4.6	45.0	30.0	225	PA66HS	PA66HS	1-5
150-16945	<b>T80ISBH5</b>	300	4.6	81.0	30.0	355	PA66HS	PA66HS	1-5
150-21290	<b>T30RSBS5</b>	150	3.5	31.0	-	135	PA66HS	PA66HS	1-3, 5
150-21299	<b>T50ROSSBS5</b>	200	4.6	45.0	-	225	PA66HS	PA66HS	1-5
150-21291	<b>T50RSBS5</b>	200	4.6	45.0	-	225	PA66HS	PA66HS	1-5
150-21293	<b>T50SSBS5</b>	150	4.6	31.0	-	225	PA66HS	PA66HS	1-5
150-21297	<b>T80ISBS5</b>	300	4.6	81.0	-	355	PA66HS	PA66HS	1-5
						<div style="border: 1px solid black; padding: 5px;"> <p><b>Other dimensions available on request. Please contact us for further information.</b></p> </div>			
150-10140	<b>T30RSB5</b>	150	3.5	31.0	-	135	PA66HS	POM	1-3, 5
150-10142	<b>T40RSB5</b>	175	4.0	38.0	-	180	PA66HS	POM	1-3, 5
150-10144	<b>T50SSB5</b>	150	4.6	31.0	-	225	PA66HS	POM	1-5
150-10141	<b>T50RSB5</b>	200	4.6	45.0	-	225	PA66HS	POM	1-5
150-10149	<b>T50ROSSB5</b>	200	4.6	45.0	-	225	PA66HS	POM	1-5

All dimensions in mm. Subject to technical changes.



### Double Mounting Base For Weld Studs

#### Features and Benefits

These are three part fixing ties, with a stud fix mounting base and two cable ties. The mounting base can be fitted to the weld stud prior to installing the cables, the cables are simply laid alongside the base and the cable ties then pulled tight. Having two separate "cradles" allows for the installation of the two cable runs at different times.

The design of the stud retainer means excessive force is not required for installation – it is simply a "soft push" action by hand.

Having separate ties to the fixing means that the head of the tie can be easily rotated to ensure the easiest possible assembly.

#### Application

Many applications require cables to be run parallel to each other but separated to avoid abrasion, the double mounting base, when used with two cable ties allow this to be achieved simply and quickly. Widely used for securing cables, pipes and hoses in the automotive and truck building industries, the mounting base is simply pushed onto a 5mm diameter weld stud or bolt.



Parallel fixation of two cables.

Material Data	
Foot Part	<b>Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)</b>
Operating Temperature	<b>-40 °C to +105 °C</b>
Flammability	<b>UL94 HB</b>



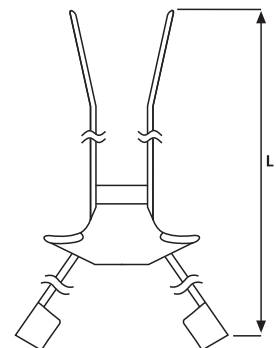
Application Tool	Registration Numbers
<b>MK3SP</b>	1
<b>MK3PNSP2, MK7P</b>	2
<b>MK7</b>	3
<b>MK7HT</b>	4
<b>MK20</b>	5
<b>MK6</b>	6
<b>MK9P, MK6PN</b>	7
<b>MK9</b>	8
<b>MK9HT</b>	9
<b>MK21</b>	10

For more information, please turn to page 410.

Material Data	
Cable Tie	<b>Polyamide 6.6 Heat Stabilised (PA66HS)</b>
Operating Temperature	<b>-40 °C to +105 °C Continuous, (+145 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



**Other dimensions available on request. Please contact us for further information.**



T50SDSBS5, T50ROSDSBS5

Technical Table										
Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material		Colour	Application Tool
150-56193	<b>T50SDSBS5</b>	150	4.6	31.0	225	5.0	PA66HS	PA66HIRHS	Black (BK)	1-5
150-56199	<b>T50ROSDSBS5</b>	200	4.6	45.0	225	5.0	PA66HS	PA66HIRHS	Black (BK)	1-5

All dimensions in mm. Subject to technical changes.



### T50SVC5

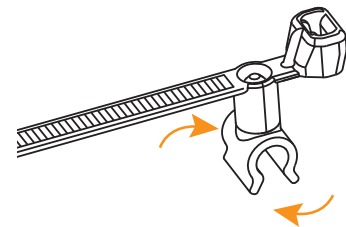
This simple to use inside serrated tie provides the opportunity to attach an additional 5 mm diameter cable, pipe or hose to an existing bundle. Offering the facility of a full 360 degrees of rotation, the second bundle can be orientated in any direction in relation to the main harness. Ideally suited for any application where the cable, pipe or hose can move in relation to the fixing point.



*T50SVC5 rotates in any direction.*



*Application in automotive industries.*



*T50SVC5*

#### Material Data

Cable Tie	<b>Polyamide 6.6 Heat Stabilised (PA66HS)</b>
Operating Temperature	<b>-40 °C to +105 °C Continuous, (+145 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Attach to Ø	Material	Colour
155-31202	<b>T50SVC5</b>	155	4.7	35.0	225	4.5 - 5.2 mm	PA66HS	Black (BK)

All dimensions in mm. Subject to technical changes.



## Cable Ties and Edge Clips

### Features and Benefits

Available with either “inside” or “outside” serrated ties these two piece assemblies simply push onto metal or plastic “edges” with thicknesses from 1.0 to 3.0 mm and from 3.0 to 6.0 mm. The high “pull off” forces are due to the integrated metal clamp.

Different Edge Clip variations are available. One version allows for cables to run parallel to the metal/plastic edge, whilst another allows for installation at 90 degrees to the metal edge.

The clip is simply pushed on by hand and held firmly in place by the integrated metal clamp. No fixing hole is necessary.

Combined with the outside serrated (OS) ties, specially designed to protect cables from chafing (see section 1.1) and wear, the Edge Clip family provides an excellent fastening solution.

### Application

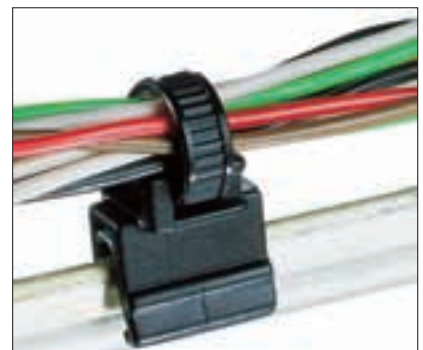
These cable ties and Edge Clip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.



T50ROSEC10 fitted onto a plastic panel to hold a Ø 6mm harness.



T50ROSEC5B – the cable runs 90 degrees to the edge.



T50ROSEC4A – the cable bundle runs across the edge.



For more Edge Clip products please see Chapter 1.4 page 133.

#### Material Data

Material	<b>Polyamide 6.6 Heat Stabilised (PA66HS)</b>
Colour	<b>Black (BK)</b>
Operating Temperature	<b>-40 °C to +105 °C Continuous, (+145 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



#### Material Data

Material	<b>Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)</b>
Colour	<b>Black (BK)</b>
Operating Temperature	<b>-40 °C to +105 °C</b>
Flammability	<b>UL94 V2</b>







### Cable Ties and Edge Clips for Panel Thickness 1.0 to 3.0 mm

With the Edge Clip family the bundled cables can be located either above or to the side of a fixing. In all two piece mounting ties, the edge clip moves freely along the tie. This allows the head of the tie to be rotated during mounting for installation in the ideal position.

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material		Application Tool	Drawing
						Cable Tie	Foot Part		
Two piece, panel thickness 1.0 - 3.0 mm									
150-76090	<b>T30REC4A</b>	150	3.5	33.0	135	PA66HS	PA66HIRHS	1-3, 5	
150-76099	<b>T50ROSEC4A</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
150-76080	<b>T30REC4B</b>	150	3.5	33.0	135	PA66HS	PA66HIRHS	1-3, 5	
150-76079	<b>T50ROSEC4B</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
150-40591	<b>T50ROSEC5A</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
150-40581	<b>T50ROSEC5B</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-05903	<b>T50ROSEC9</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-05904	<b>T50ROSEC10</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-00010	<b>T50ROSEC21</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-00011	<b>T50ROSEC22</b>	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
One piece, panel thickness 1.0 - 3.0 mm									
148-00200	<b>T50SOSEC12E</b>	160	4.6	35.0	180	PA66HS	PA66HS	1-5	
126-00000	<b>T50SOSEC13E</b>	160	4.6	35.0	180	PA66HS	PA66HS	1-5	

All dimensions in mm. Subject to technical changes.



### Cable Ties and Edge Clips for Panel Thickness 3.0 to 6.0 mm

The Edge Clips are produced as two part mounting clips for metal or plastic edge mounting of 3.0 to 6.0 mm. The "loose" tie means the head can be rotated during fitting for installation in the best position with respect to the tie closure. Combined with our outside-serrated (OS) ties, they reduce the risk of chafe and cable damage by offering a smooth surface to the cable insulation and are suitable for minimum bundle diameters of 1.0 mm.

Application Tool	Registration Numbers
MK3SP	1
MK3PNSP2, MK7P	2
MK7	3
MK7HT	4
MK20	5
MK6	6
MK9P, MK6PN	7
MK9	8
MK9HT	9
MK21	10

For more information please turn to page 410.



For more Edge Clip products please see Chapter 1.4 page 133.



Combinations with other cable ties are possible. For further information please contact us.

Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material		Application Tool	Drawing
						Cable Tie	Foot Part		
Two piece, panel thickness 3.0 - 6.0 mm									
156-04602	T50ROSEC19	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-00020	T50ROSEC20	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-00006	T50ROSEC23	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	
156-00007	T50ROSEC24	200	4.6	45.0	225	PA66HS	PA66HIRHS	1-5	

All dimensions in mm. Subject to technical changes.



### New – Automation of fixing applications!

It is now possible to fit fixings (sometimes known as foot parts) in conjunction with automatic cable tying. This is best suited to applications where either high volume manufacture or flexible production methods are needed.



Fixing Clip ATS EC36



Fixing Clip ATS EC35



Autotool System 3080.



Fir Tree ATS FT6



The footpart is placed, ...



... the strap is tied automatically through the head of the footpart, ...



... and the harness is completely bundled including the footpart.



### MR range of Mounting Head Ties

#### Features and Benefits

A one piece bundling and fixing tie offering quick and easy installation.

#### Application

This range of one piece cable ties has a mounting hole fixing method. Once fastened around the cables the bundle can be simply secured to the panel with a screw or bolt.

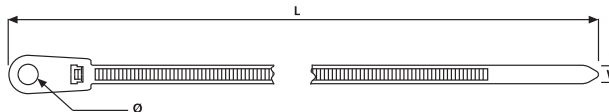
Ideal for fixing cables, pipes and hoses onto solid surfaces with pre-drilled holes or holes in metal plates.

These ties are used in many industries, for example: building construction, panel builders and white goods manufacturers.

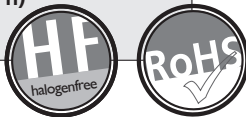


The mounting head ties can be easily screwed onto a panel.

**Material specification please see page 40.**



Material Data	
Material	<b>Polyamide 6.6 UV Resistant (PA66W)</b>
Operating Temperature	<b>-40 °C to +85 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 V2</b>



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



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Material	Colour	Application Tool
113-01819	T18MR	110	2.5	20.0	80	3.1	PA66	Natural (NA)	1-3, 5
113-01810	T18MR	110	2.5	20.0	80	3.1	PA66	Black (BK)	1-3, 5
113-01801	T18MR	110	2.5	20.0	80	3.1	PA66HS	Natural (NA)	1-3, 5
113-03019	T30MR	160	3.5	32.0	135	4.3	PA66	Natural (NA)	1-3, 5
113-03020	T30MR	160	3.5	32.0	135	4.3	PA66	Natural (NA)	1-3, 5
113-03010	T30MR	160	3.5	32.0	135	4.3	PA66	Black (BK)	1-3, 5
113-00004	T30MR	160	3.5	32.0	135	4.3	PA66	Black (BK)	1-3, 5
113-00006	T30MR	160	3.5	32.0	135	4.3	PA66W	Black (BK)	1-3, 5
113-03160	T30MR	160	3.5	32.0	135	4.3	PA66W	Black (BK)	1-3, 5
113-05019	T50MR	215	4.7	45.0	225	5.4	PA66	Natural (NA)	1-10
113-05010	T50MR	215	4.7	45.0	225	5.4	PA66	Black (BK)	1-10
113-05060	T50MR	215	4.7	45.0	225	5.4	PA66W	Black (BK)	1-10
113-05819	T50MS	165	4.6	32.0	225	5.3	PA66	Natural (NA)	1-10
113-05820	T50MS	165	4.6	32.0	225	5.3	PA66	Black (BK)	1-10
113-05419	T50ML	390	4.7	100	225	5.5	PA66	Natural (NA)	1-10
113-05400	T50ML	390	4.7	100	225	5.5	PA66	Black (BK)	1-10
113-12017	T120MR(E)	395	7.6	102	535	6.5	PA66W	Black (BK)	6-10
113-12018	T120MR(E)	395	7.6	102	535	6.5	PA66	Natural (NA)	6-10
113-00001	T120MR(E)	395	7.6	102	535	6.5	PA66	Black (BK)	6-10

All dimensions in mm. Subject to technical changes.



Please Note for Product Specific Approvals please refer to the Appendix



### WPT ties

#### Features and Benefits

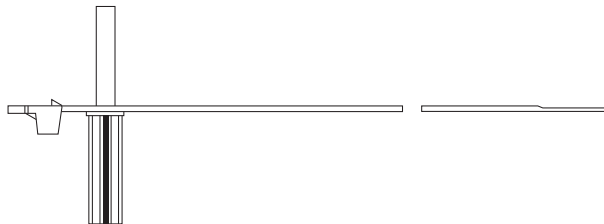
One piece fixing and cable tie can be fixed to brick, cement or wood. This product is often used in the construction industry and is both time saving and versatile.

#### Application

Simply drill an 8 mm hole and knock in the peg. Used to fasten cables, pipes or hoses in place.



Wall plug tie in application.



WPT230

Material Data	
Material	<b>Polyamide 6.6 High Impact Modified (PA66HIR)</b>
Operating Temperature	<b>-40 °C to +80 °C Continuous, (+105 °C for 500 h)</b>
Flammability	<b>UL94 HB</b>



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Fixing Hole Ø (FH)	Material	Colour
126-00020	<b>WPT230</b>	230	8.0	59.0	8.0	PA66HIR	Black (BK)

All dimensions in mm. Subject to technical changes.

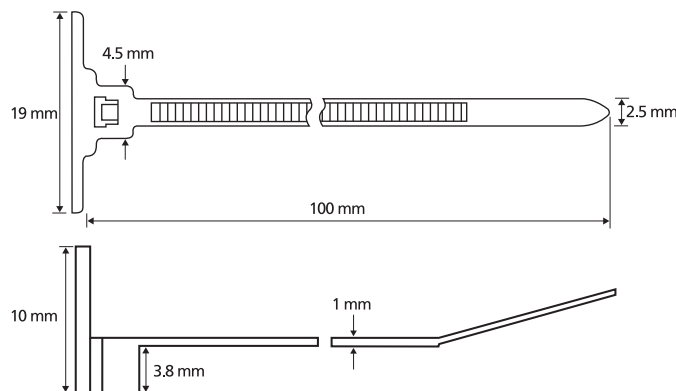
### T18RSA Self Adhesive Cable Tie

#### Features and Benefits

This cable tie and integral self adhesive base ensures a firm securement of wiring bundles to a variety of materials. The T18RSA is both quick and easy to install.

#### Application

Ideal for use in a variety of clean applications.



T18RSA

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



#### Technical Table

Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
148-00001	<b>T18RSA</b>	100	2.5	16.0	80	PA66	Natural (NA)

All dimensions in mm. Subject to technical changes.



CABLE JOINTS, CABLE TERMINATIONS, CABLE GLANDS, CABLE CLEATS, FEEDER PILLARS, FUSE LINKS, ARC FLASH, CABLE ROLLERS, CUT-OUTS  
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