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 autom otive, 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.



Mate	rial Data	
	Material	Polyamide 6.6 (PA66)
RoHs	Operating Temperature	-40 °C to +85 °C Continuous, (+105 °C for 500 h)
	Flammability	UL94 V2
		100

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

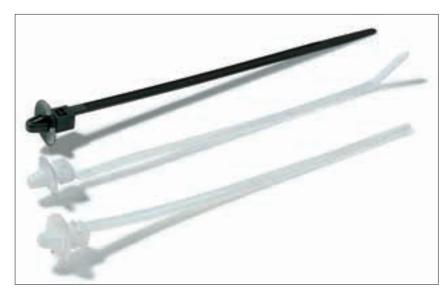
halogenfree)

(balogenfree)

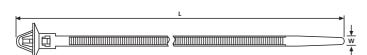
One Piece Fixing Ties with Arrowhead and Disc



Common head/fixing design.



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



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



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

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

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Technical Ta	ble										
Article-No.	Туре	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	18.0	180	6.3-7.5	0.6	1.8	PA66	Natural (NA)
111-85350	T50SD6	160	5.1	31	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	16.2	225	6.1-6.5	0.7	1.5	PA66	Natural (NA)
150-15395	T50SST5	170	4.6	31	16.2	225	6.1-6.5	0.7	1.5	PA66HS	Black (BK)
126-00017	T50SST5	170	4.6	31	16.2	225	6.1-6.5	0.7	1.5	PA66HS	Black (BK)
150-35395	T50SST5	170	4.6	31	16.2	225	6.1-6.5	0.7	1.5	PA46	Grey (GY)
111-85850	T50MD7	225	5.0	59	16.0	225	6.8-7.2	0.8	2.0	PA66HS	Black (BK)
126-00800	T50MD7	225	5.0	59	16.0	225	6.8-7.2	0.8	2.0	PA66HS	Black (BK)
126-03100	T50SOSSFT6.5E-MD	160	4.6	35	16.0	225	6.3-6.7	0.6	1.8	PA66HS	Green (GN)
156-00264	T50SOSSFT6.5E-MD	160	4.6	35	16.0	225	6.3-6.7	0.6	1.8	PA66HS	Black (BK)
126-03102	T50SOSSFT6.5E	160	4.6	35	16.0	225	6.3-6.7	1.9	2.5	PA66HS	Black (BK)
Releasable	•										
111-85480	RT50SD6	160	5.0	31	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.

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Ma	aterial Data		
	Material	Polyamide 6.6 Heat Stabilised (PA66HS)	
RoH	Operating Temperature	-40 °C to +105 °C Continuous, (+145 °C for 500 h)	
	Flammability	UL94 V2 (balogenires)	
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			$\frac{1}{\sqrt{w}}$
T50i	RSF	L	→
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Technical Ta	ible										
Article-No.	Туре	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	135	4.8-5.6	0.9	2.36	PA66	Natural (NA)	1–3, 5
111-85610	T30RSF(U)	161	3.6	31	135	4.8-5.6	0.9	2.3	PA66HS	Black (BK)	1–3, 5
111-85789	T50RSF(U)	210	4.7	44	225	6.4-7.1	1.0	3.56	PA66	Natural (NA)	1–3, 5
111-85799	T50RSF(E)	210	4.6	50	225	6.2-6.4	2.9	3.1	PA66	Natural (NA)	1–3, 5
126-01001	T50RSF(E)	210	4.6	50	225	6.2-6.4	2.9	3.1	PA66	Black (BK)	1–3, 5

All dimensions in mm. Subject to technical changes.



T50RSF(U)

One Piece Fixing Ties with Arrowhead

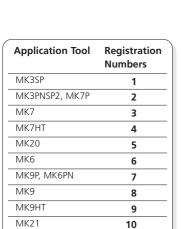
Features and Benefits

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 & hoses in the automotive, aerospace, white goods industries and panel building.

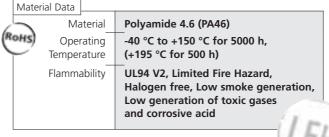


For more information, please turn to page 388.



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

Materi	al Data	
6	Material	Polyamide 6.6 (PA66)
(RoHS)	Operating Temperature	-40 °C to +85 °C Continuous, (+105 °C for 500 h)
	Flammability	UL94 V2
		17/-
		(halogenfree)
Materi	al Data	
RoHS	Material	Polyamide 6.6 Heat Stabilised (PA66HS)
	Operating Temperature	-40 °C to +105 °C Continuous, (+145 °C for 500 h)
	Flammability	UL94 V2
	-	17/-
Materi	al Data	(halogenfree)
Widter	Material	Polyamide 6.6 UV Resistant (PA66W)
(RoHs)	Operating Temperature	-40 °C to +85 °C Continuous, (+105 °C for 500 h)
	Flammability	UL94 V2
		17/-
		(balogenfree)
	al Data	



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One Piece Fixing Ties with Arrowhead

Technical Table												
Article-No. Ty	ype	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour	Application Tool	
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111-85519 T18RS	F	100	2.5	16	80	4.65-4.85	1.0	3.0	PA66	Natural (NA)	1–3, 5	
111-85560 T18RS		100	2.5	16	80	4.65-4.85	1.0	3.0	PA66W	Black (BK)	1–3, 5	
111 03300 11013	•		2.3	10	00	1.05 1.05	1.0	3.0	1710077	Didek (Dit)	1 3, 3	
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111-85719 T50SS	FD 4	1.00	4.7	25	225		1.0	2.0	PA66	Natural (NA)	1–3, 5	
126-01104 T50SS		160 160	4.7	25 25	225 225	6.0-6.4	1.0	3.0	PA66HS	Natural (NA)	1–3, 5	
126-00032 T50SS		160	4.7	25	225	6.0-6.4	1.0	3.0	PA66HS	Black (BK)	1–3, 5	
111-85729 T50RS		200	4.7	45	225	6.0-6.4	1.0	3.0	PA66	Natural (NA)	1–3, 5	
		L	1.7	15	223	0.0 0.1	1.0	3.0	17100	Tratarar (147 t)	1 3, 3	
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111-85329 T50VS		100	4.6	1.0	225	C 1 C 2	1.0	2.6	PA66	Natural (NA)	1–3, 5	
111-85329 T50VS		100	4.6 4.6	16 27	225 225	6.1-6.3	1.0 0.8	2.6	PA66	Natural (NA)	1–3, 5	
111-85349 T50SS		135	4.6	27	225	6.1-6.5	0.8	2.7	PA66HS	Black (BK)	1–3, 5	
111-85395 T50SS		135	4.6	27	225	6.1-6.5	0.8	2.7	PA46	Grey (GY)	1–3, 5	
126-00005 T50SL		165	4.6	34	225	6.1-6.3	0.8	2.7	PA66HIRHS	Black (BK)	1–3, 5	
111-85369 T50SL		165	4.6	34	225	6.1-6.3	0.8	2.7	PA66	Natural (NA)	1–3, 5	
126-00001 T50SL !	5	165	4.6	34	225	6.1-6.3	0.8	2.7	PA66HS	Black (BK)	1–3, 5	
111-85469 T50SL	6	165	4.6	34	225	6.3-7.5	0.5	2.5	PA66	Natural (NA)	1–3, 5	
111-85460 T50SL 0	6	165	4.6	34	225	6.3-7.5	0.5	2.5	PA66	Black (BK)	1–3, 5	
111-85479 T50SL	7	165	4.6	34	225	6.9-7.1	0.8	2.5	PA66	Natural (NA)	1–3, 5	
126-00027 T50SL	7	165	4.6	34	225	6.9-7.1	0.8	2.5	PA66	Black (BK)	1–3, 5	
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111-85781 YQR10	0050	165	4.6	34	225	6.9-7.1	1.6	4.0	PA66	Brown (BN)	1–3, 5	
150-48396 T80RF	T6X12*	228	4.6	45	225	6.3x12.3*	0.6	3.0	PA66	Black (BK)	1–3, 5	
150-48397 T80RF	T6X12*	228	4.6	45	225	6.3x12.3*	0.6	3.0	PA46	Grey (GY)	1–3, 5	

^{*} for slotted hole drilling

One Piece Fixing Ties with Arrowhead

Technical Tab	ole									
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour
Releasable										
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126-03001	YQR10016	165	4.6	34	225	6.9-7.1	1.6	4.0	PA66	Black (BK)
126-03000	YQR10016	165	4.6	34	225	6.9-7.1	1.6	4.0	PA66	Grey (GY)
115-07010	RT50RSF	215	4.6	50	225	7.8-8.2	0.6	2.5	PA66	Black (BK)
126-00011	RT50SL7	165	4.6	34	225	7.0	-	2.5	PA66	Black (BK)
Releasable										
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115-01900	RT18RSF	132	3.0	27.0	80	3.8-4.2	_	2.4	PA66	Natural (NA)
115-06960	RT50SFK	225	5.0	50	225	6.4-7.0	0.8	3.0	PA66	Black (BK)
115-00024	RT50SFK	225	5.0	50	225	6.4-7.0	0.8	3.0	PA66HS	Black (BK)
Releasable										
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150-26100	FBS100	115	10	27	-	6.3-6.7	0.7	3.9	PA66	Black (BK)
150-26140	FBS140	160	10	42	_	6.3-6.7	0.7	3.9	PA66	Black (BK)
150-26180	FBS185	200	10	53	-	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.

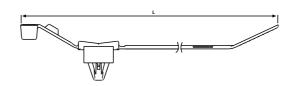
The head of the T80RSF tie is moulded in a raised position to ease assembly when the fixing is already in place in the panel. The T50SSF type has specially moulded retainers to hold battery cables parallel and firmly in place



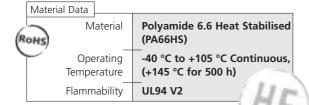
Designed to secure battery cables the T50SSF6.5 offers a simple and secure fixing.

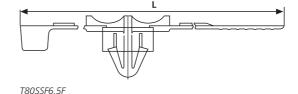
Application

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

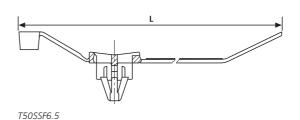


T80RSFT6.5FW





Ma	aterial Data	
	Material	Polyamide 4.6 (PA46)
RoH	Operating Temperature	-40 °C to +150 °C for 5000 h, (+195 °C for 500 h)
	Flammability	UL94 V2
		1 1-6



Technical Ta	ible			1							
Article-No.	Туре	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	T80RSF6.5F	209	4.6	45	300	6.3-6.5	0.6	3.0	PA66	Black (BK)	1–3, 5
150-39393	T80SSF6.5F	179	4.6	43	300	6.3-6.5	0.6	3.0	PA66HS	Black (BK)	1–3, 5
126-02600	T80RSF6.5F	209	4.6	45	300	6.3-6.5	0.6	3.0	PA66HS	Black (BK)	1–3, 5
150-39385	T80RSF6.5FW	209	4.6	45	300	6.3-6.5	0.6	3.0	PA66HS	Black (BK)	1–3, 5
150-39392	T80SSF6.5F	179	4.6	43	225	6.3-6.5	0.6	3.0	PA46	Grey (GY)	1–3, 5
150-39395	T80RSF6.5F	209	4.6	45	300	6.3-6.5	0.6	3.0	PA46	Grey (GY)	1–3, 5

(balogenfree)

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.

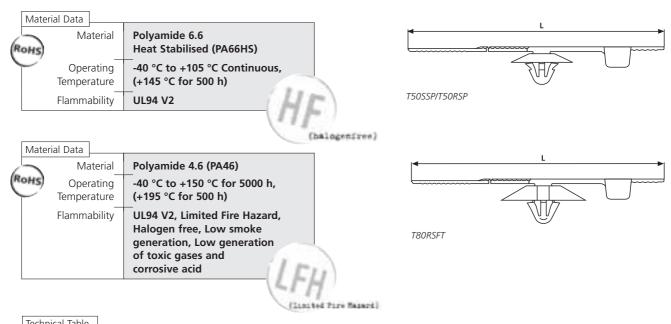
A particular design feature of these ties is the 'tab' on the end of the head - this is to facilitate easy location and orientation of the head for assembly.

Application

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



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



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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		
T50SSP	120	4.6	24	18.0	225	6.0-6.5	0.7	1.3	PA66	Black (BK)	1–3, 5		
T50RSP	190	4.6	45	18.0	225	6.0-6.5	0.75	1.3	PA66	Black (BK)	1–3, 5		
T80RSFT	190	4.6	45	24.4	355	5.7-6.3	1.0	3.5	PA66	Black (BK)	1–3, 5		
T80RSFT	190	4.6	45	24.4	355	5.7-6.3	1.0	3.5	PA66HS	Natural (NA)	1–3, 5		
T80RSFT	190	4.6	45	24.4	355	5.7-6.3	1.0	3.5	PA66HS	Black (BK)	1–3, 5		
T80RSFT	190	4.6	45	24.4	355	5.7-6.3	1.0	3.5	PA46	Grey (GY)	1–3, 5		
	Type T50SSP T50RSP T80RSFT T80RSFT T80RSFT	Type (L) T50SSP 120 T50RSP 190 T80RSFT 190 T80RSFT 190 T80RSFT 190	Type Length (L) Width (W) T50SSP 120 4.6 T50RSP 190 4.6 T80RSFT 190 4.6 T80RSFT 190 4.6 T80RSFT 190 4.6	Type Length (L) Width (W) Bundle Ø max. T50SSP 120 4.6 24 T50RSP 190 4.6 45 T80RSFT 190 4.6 45 T80RSFT 190 4.6 45 T80RSFT 190 4.6 45 T80RSFT 190 4.6 45	Type Length (L) Width (W) Bundle Ø max. Disc Ø T50SSP 120 4.6 24 18.0 T50RSP 190 4.6 45 18.0 T80RSFT 190 4.6 45 24.4 T80RSFT 190 4.6 45 24.4 T80RSFT 190 4.6 45 24.4	Type Length (L) Width (W) Bundle Ø max. Disc Ø strength (N) T50SSP 120 4.6 24 18.0 225 T50RSP 190 4.6 45 18.0 225 T80RSFT 190 4.6 45 24.4 355 T80RSFT 190 4.6 45 24.4 355 T80RSFT 190 4.6 45 24.4 355 T80RSFT 190 4.6 45 24.4 355	Type Length (L) Width (W) Bundle Ø max. Disc Ø strength (N) Min. Tensile Ø strength (N) Hole Ø T50SSP 120 4.6 24 18.0 225 6.0-6.5 T50RSP 190 4.6 45 18.0 225 6.0-6.5 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 T80RSFT 190 4.6 45 24.4 355 5.7-6.3	Type Length (L) Width (W) Bundle Ø max. Disc Ø Min. Tensile Strength (N) Hole Ø Panel Thickness min. T50SSP 120 4.6 24 18.0 225 6.0-6.5 0.7 T50RSP 190 4.6 45 18.0 225 6.0-6.5 0.75 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0	Type Length (L) Width (W) Bundle Ø max. Disc Ø Min. Tensile Strength (N) Hole Ø Panel Thickness min. Panel Thickness max. T50SSP 120 4.6 24 18.0 225 6.0-6.5 0.7 1.3 T50RSP 190 4.6 45 18.0 225 6.0-6.5 0.75 1.3 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5	Type Length (L) Width (W) Bundle Ø max. Disc Ø max. Min. Tensile Strength (N) Hole Ø Panel Thickness min. Panel Thickness max. Material T50SSP 120 4.6 24 18.0 225 6.0-6.5 0.7 1.3 PA66 T50RSP 190 4.6 45 18.0 225 6.0-6.5 0.75 1.3 PA66 T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 PA66HS T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 PA66HS T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 PA66HS	Type Length (L) Width (W) Bundle Ø max. Disc Ø max. Min. Tensile Strength (N) Hole Ø min. Panel Thickness min. Panel Thickness max. Material Material Colour T50SSP 120 4.6 24 18.0 225 6.0-6.5 0.7 1.3 PA66 Black (BK) T50RSP 190 4.6 45 18.0 225 6.0-6.5 0.75 1.3 PA66 Black (BK) T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 PA66HS Natural (NA) T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 PA66HS Natural (NA) T80RSFT 190 4.6 45 24.4 355 5.7-6.3 1.0 3.5 PA66HS Natural (NA)		

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.

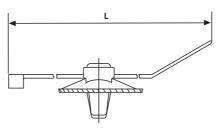
The arrowhead base will easily push into pre-punched holes in panels and offers a very secure fixing. The two piece design enables the head of the tie to be orientated to the required position to ease assembly, whilst the 'disc' on the top of the arrowhead takes up variation in panel thickness ensuring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

Two piece fixing tie with moveable arrowhead.

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

Ma RoHs	terial Data Material	Polyamide 6.6 Heat Stabilised (PA66HS)	
$\overline{}$	Colour	Black (BK)	
	Operating Temperature	-40 °C to +105 °C Continuous, (+145 °C for 500 h)	
	Flammability	UL94 V2	-
		///	slogenfree)

Technical Ta	ble					ı					
		Length	Width	Bundle	Disc	Min. Tensile	Hole	Panel Thickness	Panel Thickness	Mat	erial
Article-No.	Туре	(L)	(W)	Ø max.	Ø	Strength (N)	Ø	min.	max.	Cable Tie	Foot Part
150-13593	T50SSFT6.5	150	4.6	31	22.4	225	6.3-6.7	0.7	2.0	PA66HS	PA66HS
150-13591	T50RSFT6.5	200	4.6	45	22.4	225	6.3-6.7	0.9	2.0	PA66HS	PA66HS
150-37691	T50RSFT6.5D18	200	4.6	45	18.0	225	6.5-6.8	0.4	1.6	PA66HS	PA66HIRHS
117-05160	T50RDHSFT6.5	210	4.7	45	22.4	225	6.3-6.7	0.7	2.0	PA66HS	PA66HS
150-13596	T80ISFT6.5	300	4.6	81	22.4	355	6.3-6.7	0.7	2.0	PA66HS	PA66HS

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.

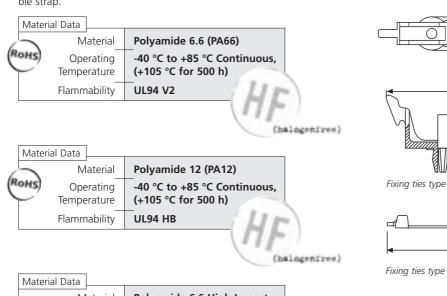
All three versions listed are releasable and reusable allowing for the removal or addition of cables after installation.

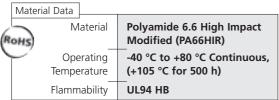
The RELF and RI ranges are conventional 'serrated' cable ties, whilst the FBR range have a 'ladder-type' design which is locked by stretching the strap over the head of the tie. The design of the FBR gives a very flexible strap.

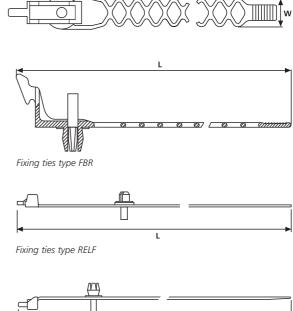


FBR cable ties have a flexible 'ladder' design of strap - Ideal for secure fixing into thin panels (up to 2.5mm thick).

Fixing ties type RI







Technical Tab	le				Г	1	Г		1	
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Material	Colour
150-27100	FBR6/100	115	10.0	27	-	6.2-6.5	0.8	2.4	PA66	Black (BK)
150-27140	FBR6/140	160	10.0	42	-	6.2-6.5	0.8	2.4	PA66	Black (BK)
150-27180	FBR6/185	200	10.0	53	-	6.2-6.5	0.8	2.4	PA66	Black (BK)
150-27110	FBR7/100	115	10.0	27	-	7.2-7.5	0.8	2.4	PA66	Black (BK)
150-27150	FBR7/140	160	10.0	42	-	7.2-7.5	0.8	2.4	PA66	Black (BK)
150-27190	FBR7/185	200	10.0	53	_	7.2-7.5	0.8	2.4	PA66	Black (BK)
131-31710	RELF170	180	8.0	44	180	6.5	2.5	2.5	PA66	Black (BK)
115-40902	RELF170	180	8.0	44.0	180	6.3	2.5	2.5	PA66HIR	Black (BK)
131-14080	RI 80	80	7.0	16	265	6.9-7.1	0.8	2.2	PA12	Black (BK)
131-14120	RI 120	120	9.0	28	265	6.9-7.1	0.8	2.2	PA12	Black (BK)
131-14160	RI 160	160	9.0	41	265	6.9-7.1	0.8	2.2	PA12	Black (BK)

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 7.0mm 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.

(halogenfree)

(balogenfree)



RoHs

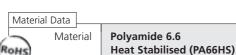
Material Operating Temperature Polyamide 6.6 (PA66) -40 °C to +85 °C Continuous, (+105 °C for 500 h)

Flammability

UL94 V2

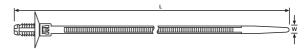


Common head/fixing design.



Operating Temperature -40 °C to +105 °C Continuous, (+145 °C for 500 h)

Flammability UL94 V2



One piece fixing tie with fir tree mount



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

Technical Tab	le										
Article-No.	Туре	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	T18RDP5	110	2.5	20	13.0	80	4.9-5.1	3.0	4.0	PA66	Black (BK)
155-05800	T50SOSFT6E	160	4.6	35	-	150	6.5-7.0	0.75	3.0	PA66HIRHS	Black (BK)
157-01104	T50SDP6	170	5.0	31	22.0	180	6.3-7.1	0.8	7.0	PA66	Natural (NA)
150-55550	T50SDP6	170	5.0	31	22.0	180	6.3-7.1	0.8	7.0	PA66HS	Black (BK)
150-01700	FT220DP7	230	4.7	40	16.0	225	6.8-7.2	0.8	5.0	PA66	Black (BK)
Releasable											
150-55500	REL30SDP6	170	5.0	31	22.0	135	6.3-7.0	3.0	7.0	PA66	Black (BK)

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 prepunched holes in panels or threaded, blind holes, and offers a very secure fixing.

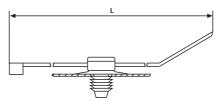
The two piece design enables the head of the tie to be orientated to the required position to ease assembly, whilst the 'disc' on the top of the fir tree covers the hole and minimises the ingress of dust, dirt and water.

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.



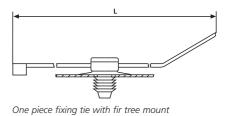
One piece fixing tie with fir tree mount

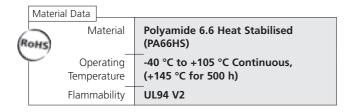
Other dimensions available on request. Please contact us.

Technical Tal	ble											
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Disc Ø	Min. Tensile Strength (N)	Hole Ø	Panel Thickness min.	Panel Thickness max.	Colour	Ma ⁻ Cable Tie	terial Foot Part
	T30RFT5	150	3.6	31	16.0	135	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
150-55850	T30RFT5	148	3.6	35	16.0	135	4.5-5.0	0.7	3.0	Black (BK)	PA66HS	PA66HIRHS
150-55948	T30RFT5	150	3.6	31	16.0	135	4.5-5.0	0.7	3.0	Natural (NA), Grey (GY)	PA46	PA46
150-55942	T30LRFT5	260	3.3	61	16.0	180	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
150-55941	T50RFT5	200	4.6	45	16.0	225	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
156-00025	T50RFT5	200	4.6	45	16.0	225	4.5-5.0	0.7	3.0	Black (BK)	PA66HS	PA66HIRHS
150-55943	T50SFT5	150	4.6	31	16.0	225	4.5-5.0	0.7	3.0	Black (BK), Grey (GY)	PA66HS	PA66
150-09110	T18RFT6	100	2.5	20	16.0	80	6.4-7.1	0.75	3.0	Black (BK)	PA66	PA66
150-77935	T18RFT6	100	2.5	20	16.0	80	6.4-7.1	0.75	3.0	Black (BK)	PA66W	PA66
150-31097	T30LFT6LG	190	3.6	45	16.0	135	6.4-7.1	0.75	6.0	Black (BK)	PA66	PA66HIRHS
150-77932	T30LRFT6	260	3.3	65	16.0	180	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-77950	T30RFT6	150	3.6	31	16.0	135	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-31090	T30RFT6LG	148	3.6	35	16.0	135	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
150-77936	T50RDHFT6	210	4.7	19	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
156-05308	T50RFT6	200	4.6	45	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66	PA66
150-77938	T50RFT6	200	4.6	45	16.0	225	6.4-7.1	0.75	3.0	Grey (GY)	PA46	PA46
150-77941	T50RFT6	200	4.6	45	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66
156-05300	T50RFT6	200	4.6	45	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HS
150-31091	T50RFT6LG	200	4.6	44	16.0	225	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
156-00076	T50ROSFT6	200	4.6	45	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
156-01500	T50SFT6	150	4.6	31	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66	PA66

Cable Tie and Fir Tree Mount Assemblies

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



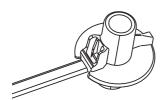


Other dimensions available on request. Please contact us for further information.

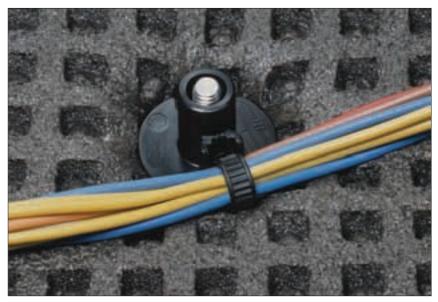
Technical Ta	ble											
		Length	Width	Bundle	Disc	Min. Tensile Strength	Hole	Panel Thickness	Panel Thickness		Ma	terial
Article-No.	Туре	(L)	(W)	Ø max.	Ø	(N)	Ø	min.	max.	Colour	Cable Tie	Foot Part
150-77933	T50SFT6	150	4.6	31	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66
150-31093	T50SFT6LG	160	4.6	35	16.0	225	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
156-05902	T50ROS-FT6-SD	200	4.6	46	16.0	225	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIR
150-77934	T80LFT6	390	4.6	108	16.0	355	6.4-7.0	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-77937	T80IFT6	300	4.6	81	16.0	355	6.4-7.1	0.75	3.0	Black (BK)	PA66HS	PA66HIRHS
150-31096	T80IFT6LG	300	4.6	81	16.0	355	6.4-7.1	0.75	6.0	Black (BK)	PA66HS	PA66HIRHS
156-01503	T50SFT7	160	4.6	31	16	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
111-85870	T50RFT7	200	4.6	45	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
156-05312	T50RFT7	200	4.6	45	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
156-05311	T50RFT7	200	4.6	45	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66HS	PA66HS
111-05350	T50IFT7	300	4.6	85	16	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
156-00903	T50IFT7	300	4.6	81	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66	PA66
150-00700	T50IFT7	300	4.6	81	16.0	225	6.5-7.0	0.8	7.0	Black (BK)	PA66HS	PA66HS
156-05320	T50RFT8	200	4.6	45	16.0	225	7.7-8.0	0.8	6.0	Black (BK)	PA66	PA66
111-85880	T50RFT8	200	4.6	45	16.0	225	7.7-8.0	0.8	6.0	Black (BK)	PA66HS	PA66HS
156-00044	T50RFT8	200	4.6	45	16.0	225	7.7-8.0	0.8	6.0	Black (BK)	PA66HS	PA66HS
156-00200	T120IFT9	300	7.6	75	20.0	535	8.8-9.4	4.0	8.0	Black (BK)	PA66HIR(S)	PA66HIR(S)
156-05301	T50RFT10	200	4.6	45	18.0	225	9.7-10.0	0.8	5.0	Black (BK)	PA66	PA66
111-85810	T50RFT10	200	4.6	45	18.0	225	9.7-10.0	0.8	5.0	Black (BK)	PA66HS	PA66HS

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



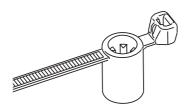
The new head design offers additional fixing of soft materials.

Technical Tab	le							
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
155-05701	T50SOSSBH5E	165	4.6	35	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



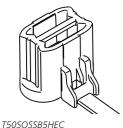
The T50SSBS50TE allows very precise routing of cable bundles.

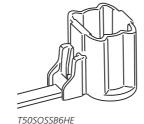
Technical Tab	le							
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
155-30602	T50SSBS50TE*	160	4.6	35	200	5	PA66HS	Black (BK)

^{*} 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 5-6mm 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.

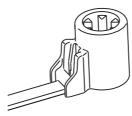




This outside serrated cable tie with weld stud mounting keeps the cables close to the fixing stud.

T50SOSSBS5E

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.



T50SOSSBS5E

Technical Tab	Technical Table												
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour					
155-05400	T50SOSSB5HEC	160	4.6	35	170	5	PA66HS	Black (BK)					
155-46302	T50SOSSB6HE	160	4.6	35	170	6	PA66HS	Black (BK)					
155-12300	T50SOSSBS5E	160	4.6	35	225	5	PA66HS	Black (BK)					
155-23601	T50SOSWSP5E	163	4.6	35	200	5	PA66HS	Black (BK)					

All dimensions in mm. Subject to technical changes.

T50SOSWSP5E

The unique shape of the head on this fixing tie provides a 5-6mm 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.



Wide Strap Heavy Duty Stud Mount Cable Ties

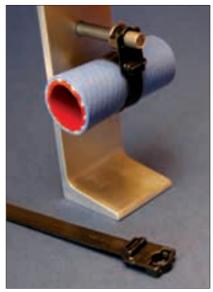
Features and Benefits

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 6mm and 9mm 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: 9.5mm 104.7mm
- 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 6mm/9mm weld studs or 6mm/9mm ISO bolts are used and cables need to be bundled and secured.



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



Wide Strap Heavy Duty Stud Mount Cable Ties

Mate	erial Data	
RoHS	Material	Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)
	Operating	-40 °C to +110 °C
	Temperature	
	Flammability	UL94 HB

	Material Data		1
R	ons)	aterial	Polyamide 6.6 High Impact Modified, Heat and UV Stabilised (PA66HIRHSW)
		erating erature	-40 °C to +110 °C
	Flamm	nability	UL94 HB

Technical Tab	le						
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
Wide Strap T	ies with 6mm Stu	d Mount					
157-00400	WSS250	246	12.7	57	534	PA66HIRHSW	Black (BK)
157-00401	WSI250	322	12.7	82	534	PA66HIRHSW	Black (BK)
157-00402	WSR250	398	12.7	104	534	PA66HIRHS	Black (BK)
Wide Strap T	ies with 9mm Stu	d Mount					
157-00406	WSS380	246	12.7	57	534	PA66HIRHS	Black (BK)
157-00403	WSS380	246	12.7	57	534	PA66HIRHS	Black (BK)
157-00407	WSI380	322	12.7	82	534	PA66HIRHS	Black (BK)
157-00404	WSI380	322	12.7	82	534	PA66HIRHS	Black (BK)
157-00408	WSR380	398	12.7	104	534	PA66HIRHS	Black (BK)
157-00405	WSR380	398	12.7	104	534	PA66HIRHS	Black (BK)

Cable Ties for Weld Studs

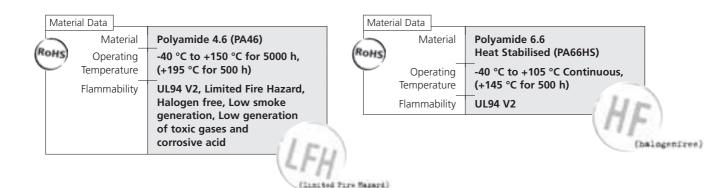
Features and Benefits

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.



Technical Tab	ole						
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
	L —	— — — 04//	>			w w	
150-28100	FBB100 FBB140	110	10	23	-	PA66 PA66	Black (BK)
150-28180	FBB185	200	10	50	-	PA66	Black (BK)
		0 0 VIII				© w	
150-29100	FBB100M	110	10.0	23	-	PA66	Black (BK)
150-29140	FBB140M	145	10.0	38	-	PA66	Black (BK)
150-29180	FBB185M	200	10.0	50	-	PA66	Black (BK)
4	L .						₩ ↑ w
151-01000	SBR5	220	6.0	40	300	PA66	Black (BK)
131-60060	SBR5	220	6.0	40	300	PA66HS	Black (BK)
131-60058	SBR8S	215	6.0	40	300	PA46	Grey (GY)

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.

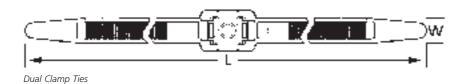
Application

Primarily designed for use in the automotive/truck industry, these parts can be used in a wide variety of industries and applications where 6mm/9mm weld studs or 6mm/9mm 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.

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



Technical Table											
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.		Stud Ø	Material	Colour			
115-00034	DCT9	330	12.7	33	670	6.35	PA66HIR	Black (BK)			
115-00033	DCT11	489	12.7	58	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

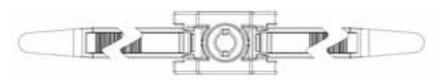
Application

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.



Standoff Mounting Dual Clamp Ties.

	Material Data		
R	OHS)	laterial	Polyamide 6.6 High Impact Modified, Heat and UV Stabilised (PA66HIRHSW)
		erating erature	-40 °C to +110 °C
	Flamm	nability	UL94 HB



Standoff Mounting Dual Clamp Ties

Technical Tab	ole							
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Stud Ø	Material	Colour
117-00012	SDCTR312	511	12.7	58	445	8	PA66HIRHSW	Black (BK)



Cable Ties for Weld Studs

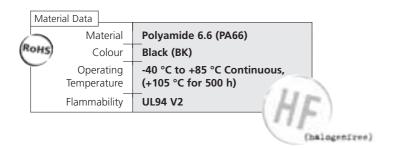
Features and Benefits

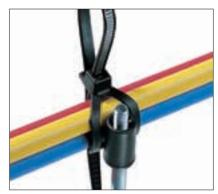
These weld stud fixing ties are designed to be fitted onto 5mm studs or 5mm ISO threaded studs. The types T50RS5, RT50RS5 and SBS9/230 are designed to be applied by hand (Soft Push). Types SB14 and SB9 are designed to be hammered onto the stud (Hard Push).

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.

Technical Table	e				1					
Article-No.	Туре	Length (L)	Width (W)	Height (H2)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour		
111-07110	T50RS5	190	L 4.6	14.5	40	225	PA66	Black (BK)		
115-07110 I	RT50RS5	190	4.6	14.5	40	225	PA66	Black (BK)		
H2										
-	SBS9/230	230		10.0	60	245	PA66	Black (BK)		
	SBS9/230	230	5.0	10.0	60	245	PA66	Black (BK)		
150-10901 L		230 L	5.0			=	PA66	Black (BK)		
150-10901 1 150-10901 1 131-80050 1	SBS9/230 SB9/172 SB9/230	230		10.0	60 40 60	245 245 245 245				
150-10901 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB9/172	230 L 172	5.0	10.0	40	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 5mm 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 the main loom.



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.

Article-No. Type (L) (W) Ø max. Ø (N) Cable Tie Foot Part Tool 150-16941 T30RSBH5 150 3.5 31 30.0 135 PA66HS PA66HS 1-3, 5	Technical Tab	le										
150-16941 T30RSBH5 150 3.5 31 30.0 135 PA66HS PA66HS 1-3, 5	Article-No	Type	_						1	Application		
150-16941 T30RSBH5 150 3.5 31 30.0 135 PA66HS PA66HS 1-3, 5	Alticle-No.	Туре	(L)	(00)	o max.	U	(14)	Cable He	TootTait	1001		
150-16941 T30RSBH5 150 3.5 31 30.0 135 PA66HS PA66HS 1-3, 5												
150-16941 T30RSBH5 150 3.5 31 30.0 135 PA66HS PA66HS 1-3, 5									-			
150-16941 T30RSBH5 150 3.5 31 30.0 135 PA66HS PA66HS 1-3, 5	$\overline{}$				ATT.			ÆЩ				
150-16942 T40RSBH5 175 4.0 40 30.0 180 PA66HS PA66HS 1-3, 5												
150-16943 T50RSBH5 200 4.6 45 30.0 225 PA66HS PA66HS 1-5			150				135			1–3, 5		
156-05905 T50ROSSBH5SD 200 4.6 45 30.0 225 PA66HS PA66HS 1-5	150-16942	T40RSBH5	175	4.0	40	30.0	180	PA66HS	PA66HS	1–3, 5		
150-16945 T80ISBH5 300 4.6 81 30.0 355 PA66HS PA66HS 1-5												
L Other dimensions available on request. 150-21290 T30RSBS5 150 3.5 31 - 135 PA66HS PA66HS 1-3,5 150-21299 T50ROSSBS5 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21291 T50RSBS5 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21293 T50SSBS5 150 4.6 31 - 225 PA66HS PA66HS 1-5 150-21297 T80ISBS5 300 4.6 81 - 355 PA66HS PA66HS 1-5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5	156-05905	T50ROSSBH5SD	200	4.6	45	30.0	225	PA66HS	PA66HS			
Other dimensions available on request. Please contact us for further information 150-21290 T30RSBS5 150 3.5 31 - 135 PA66HS PA66HS 1-3, 5 150-21299 T50RSBSS 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21291 T50RSBSS 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21293 T50SSBSS 150 4.6 31 - 225 PA66HS PA66HS 1-5 150-21297 T80ISBS5 300 4.6 81 - 355 PA66HS PA66HS 1-5 150-10140 T30RSBS 150 3.5 31 - 135 PA66HS POM 1-3, 5	150-16945	T80ISBH5	300	4.6	81	30.0	355	PA66HS	PA66HS	1–5		
150-21299 T50ROSSBS5 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21291 T50RSBS5 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21293 T50SSBS5 150 4.6 31 - 225 PA66HS PA66HS 1-5 150-21297 T80ISBS5 300 4.6 81 - 355 PA66HS PA66HS 1-5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3,5 150-10140 T30RSB5 150 T30RSB5 T30RSB5 T30RSB5 T30RSB5 T30RSB5 T30RSB5 T30RSB5 T30RSB5 T3]	Please contact	us for fu	rther info	rmation.		
150-21291 T50RSBS5 200 4.6 45 - 225 PA66HS PA66HS 1-5 150-21293 T50SSBS5 150 4.6 31 - 225 PA66HS PA66HS 1-5 150-21297 T80ISBS5 300 4.6 81 - 355 PA66HS PA66HS 1-5 L L L L - 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3, 5			150	3.5		_			PA66HS	1–3, 5		
150-21293 T50SSBS5 150 4.6 31 - 225 PA66HS PA66HS 1-5 150-21297 T80ISBS5 300 4.6 81 - 355 PA66HS PA66HS 1-5 L 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3, 5			200	4.6		-						
150-21297 T80ISBS5 300 4.6 81 - 355 PA66HS PA66HS 1-5 L 150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3, 5						-						
150-10140 T30RSB5 150 3.5 31 - 135 PA66HS POM 1-3, 5						-						
150 10 10 150 150 150 150 150 150 150 15	150-21297	T80ISBS5	300	4.6	81	-	355	PA66HS	PA66HS	1–5		
150 10110 1501355												
150-10142 T40RSB5 175 4.0 38 - 180 PA66HS POM 1-3, 5	150-10140	T30RSB5	150	3.5	31	-	135	PA66HS	POM	1–3, 5		
			175	4.0	38	_	180	PA66HS	POM			
150-10144 T50SSB5 150 4.6 31 – 225 PA66HS POM 1–5	150-10142	T40RSB5	1/5	4.0		1				1–3, 5		
150-10141 T50RSB5 200 4.6 45 – 225 PA66HS POM 1–5						_	225	PA66HS	-	-		
150-10149 T50ROSSB5 200 4.6 45 - 225 PA66HS POM 1-5	150-10144	T50SSB5	150	4.6	31		-		POM	1–5		



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.

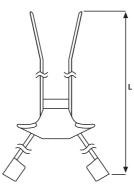
Application

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.

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



Parallel fixation of two cables.



T50SDSBS5, T50ROSDSBS5

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

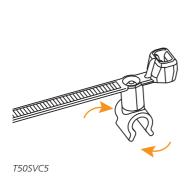
For more information, please turn to page 388.

Technical Table												
		Length	Width	Bundle	Min. Tensile	Stud	Mat	erial		Application		
Article-No.	Туре	(L)	(W)	Ø max.	Strength (N)	Ø	Cable Tie	Foot Part	Colour	Tool		
150-56193	T50SDSBS5	150	4.6	31	225	5.0	PA66HS	PA66HIRHS	Black (BK)	1–5		
150-56199	T50ROSDSBS5	200	4.6	45	225	5.0	PA66HS	PA66HIRHS	Black (BK)	1–5		

Mater	ial Data		_	Material Data		
RoHS	Cable Tie	Polyamide 6.6 Heat Stabilised (PA66HS)	(R	ohs) Fo	oot Part	Polyamide 6.6 High Impact Modified,
	Operating Temperature	-40 °C to +105 °C Continuous, (+145 °C for 500 h)	\	Or	erating	Heat Stabilised (PA66HIRHS) -40 °C to +105 °C
	Flammability	UL94 V2	-)		erature	
		177	H ()	Flamı	mability	UL94 HB
		0	slogenfree	3		

T50SVC5

This simple to use inside serrated tie provides the opportunity to attach an additional 5mm 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.

	Mater	ial Data			1
R	oHs	Cab	le Tie	Polyamide 6.6 Heat Stabilised (PA66HS)	
		Ope Tempe	rating rature	-40 °C to +105 °C Continuous, (+145 °C for 500 h)	
		Flamma	ability	UL94 V2	-
				111	malogenfree)



Application in automotive industries.

Technical Table								
Article-No.	Туре	Length (L)		Bundle Ø max.	Min. Tensile Strength (N)	Attach to Ø	Material	Colour
155-31202	T50SVC5	155	4.7	35	225	4.5 - 5.2	PA66HS	Black (BK)

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 3.0mm and from 3.0 to 6.0mm. 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.

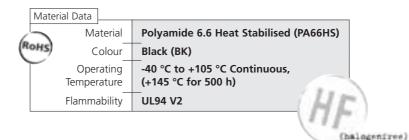


T50ROSEC5B - the cable runs 90 degrees to the edge.



T50ROSEC4A - the cable bundle runs across the edge.

For more Edge Clip products please see Chapter 1.4 page 127.



Mater	ial Data	
RoHS	Material	Polyamide 6.6 High Impact Modified, Heat Stabilised (PA66HIRHS)
$\overline{}$	Colour	Black (BK)
	Operating	-40 °C to +105 °C
	Temperature	
	Flammability	UL94 V2

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

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 Tab	le								
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Mat Cable Tie	erial Foot Part	Application Tool	Drawing
Two piece, p	anel thickness 1.0 -	3.0 mm	'						
150-76090	T30REC4A	150	3.5	33	135	PA66HS	PA66HIRHS	1–3, 5	
150-76099	T50ROSEC4A	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
150-76080	T30REC4B	150	3.5	33	135	PA66HS	PA66HIRHS	1–3, 5	
150-76079	T50ROSEC4B	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
150-40591	T50ROSEC5A	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
150-40581	T50ROSEC5B	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-05903	T50ROSEC9SD	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-05904	T50ROSEC10SD	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-00010	T50ROSEC21	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-00011	T50ROSEC22	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
One piece, p	anel thickness 1.0 -	3.0 mm							
148-00200	T50SOSEC12E	160	4.6	35	180	PA66HS	PA66HS	1–5	
126-00000	T50SOSEC13E	160	4.6	35	180	PA66HS	PA66HS	1–5	

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

The Edge Clips are produced as two part mounting clips for metal or plastic edge mounting of 3.0 to 6.0mm. 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 1.0mm.

Technical Tab	le		1			Г			
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Ma Cable Tie	terial Foot Part	Application Tool	Drawing
Two piece, p	anel thickness 3.0	- 6.0 mm							
156-04602	T50ROSEC19	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-00020	T50ROSEC20	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-00006	T50ROSEC23	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	
156-00007	T50ROSEC24	200	4.6	45	225	PA66HS	PA66HIRHS	1–5	

All dimensions in mm. Subject to technical changes.

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

For more Edge Clip products please see Chapter 1.4 page 127.

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 388.

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



The footpart is placed, ...



Autotool System 3080.





Fir Tree ATS FT6



 \dots the strap is tied automatically through the head of the footpart, \dots



... 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

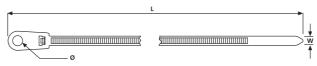
This range of one piece cable ties has a mounting hole fixing method. Once fastened around the cables the bundle can be simply secured to the panel with a screw or bolt.

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 Data		
(R	Mate	erial	Polyamide 6.6 UV Resistant (PA66W)
	Operat Temperat	_	-40 °C to +85 °C Continuous, (+105 °C for 500 h)
	Flammab	ility	UL94 V2
			F7 h

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

Technical Tab	le								
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Hole Ø	Material	Colour	Application Tool
113-01819	T18MR	110	2.5	20	80	3.1	PA66	Natural (NA)	1–3, 5
113-01810	T18MR	110	2.5	20	80	3.1	PA66	Black (BK)	1–3, 5
113-01801	T18MR	110	2.5	20	80	3.1	PA66HS	Natural (NA)	1–3, 5
113-03019	T30MR	160	3.5	32	135	4.3	PA66	Natural (NA)	1–3, 5
113-03020	T30MR	160	3.5	32	135	4.3	PA66	Natural (NA)	1–3, 5
113-03010	T30MR	160	3.5	32	135	4.3	PA66	Black (BK)	1–3, 5
113-00004	T30MR	160	3.5	32	135	4.3	PA66	Black (BK)	1–3, 5
113-00006	T30MR	160	3.5	32	135	4.3	PA66W	Black (BK)	1–3, 5
113-03160	T30MR	160	3.5	32	135	4.3	PA66W	Black (BK)	1–3, 5
113-05019	T50MR	215	4.7	45	225	5.4	PA66	Natural (NA)	1–10
113-05010	T50MR	215	4.7	45	225	5.4	PA66	Black (BK)	1–10
113-05060	T50MR	215	4.7	45	225	5.4	PA66W	Black (BK)	1–10
113-05819	T50MS	165	4.6	32	225	5.3	PA66	Natural (NA)	1–10
113-05820	T50MS	165	4.6	32	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	PA66	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	PA6W	Black (BK)	6–10

(halogenfree)

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.

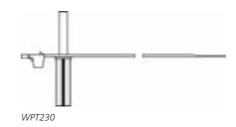
Application

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



Wall plug tie in application.

	Material Data		
R	OHS)	aterial	Polyamide 6.6 High Impact Modified (PA66HIR)
	Ope Tempe	rating rature	-40 °C to +80 °C Continuous, (+105 °C for 500 h)
	Flamm	ability	UL94 HB



Technical Tab	le						
Article-No.	Туре	Length (L)	Width (W)	Bundle Ø max.	Fixing Hole Ø (FH)	Material	Colour
126-00020	WPT230	230	8	59	8.0	PA66HIR	Black (BK)

All dimensions in mm. Subject to technical changes.

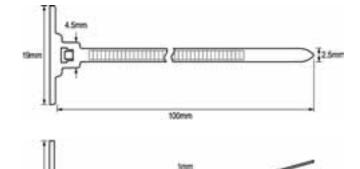
T18RSA Self Adhesive Cable Tie

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.



	Mater	ial Data				
/		Material	Polyamide 6.6 (PA66)			
R	oHs)	Operating Temperature	-40 °C to +85 °C Continuous, (+105 °C for 500 h)			
		Flammability	UL94 V2			
			(17)			

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T18RSA

Technical Tab	le					Г	
Article-No.	Type	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material	Colour
148-00001	T18RSA	100	2.5	16	80	PA66	Natural (NA)