2-Piece Fixing Ties with Pipe Clip

These fasteners interconnect two different bundles of goods, of various size and type. The mobility of the fixing tie provides a secure grip and protects the cables or bundles, even in difficult conditions.

Features and Benefits

- · Easy to assemble
- · For routing of two different bundles
- For post-installation of additional cables for pre-assembled cable looms
- Ideally used in the automotive industry, but also in all industries where bundles and cables have to be routed and connected

2-Piece Fixing Ties with Pipe Clip, twistable 360°

Features and Benefits

- Simply clip onto a wire or hose
- Fixing clip offers full 360° rotation
- Routed cable can move in any direction in relation to the fixing point
- · Inside serrated cable tie
- Ideally used in the Automotive Industry



2-Piece Fixing Ties with Pipe Clip

Features and Benefits

- For post-installation of additional cables for pre-assembled cable looms
- Variety of twist angles and even different loop directions provide flexibility for cable routing
- For OC1 and 2A additional cable tie dimensions are available
- CBTO-series for cable ties up to 5 mm





Other product styles are available in the Automotive catalogue.



2-Piece Fixing Ties with Pipe Clip, twistable 360°

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	Attach to Ø	Material	Colour	Tools	Article-No.
T50SVC4S		4.7	155.0	35.0	3.8 - 4.2	PA66HS, PP	Black (BK), Natural (NA)	2-10	156-01374
T50SVC6,5		4.7	155.0	35.0	6.5 - 8.0	PA66HS, PA66HIRHS	Black (BK)	2-10	156-01371
T50SVCOC10-14	0	4.7	155.0	35.0	10.0 - 14.0	PA46	Grey (GY)	2-10	156-01385
T50SVCOC19-24,5		4.7	155.0	35.0	19.0 - 24.5	PA66HS, PA66HIRHS	Black (BK)	2-10	156-01369

All dimensions in mm. Subject to technical changes.

2-Piece Fixing Ties with Pipe Clip

TYPE	Drawing	Width (W)	Length (L)	Bundle Ø max.	Attach to Ø	Material	Colour	Tools	Article-No.
T50ROC1B		4.6	202.0	45.0	4.0 - 10.0	PA66HS, PA66HIRHS	Black (BK)	2-10	156-00306

All dimensions in mm. Subject to technical changes.

2-Piece Fixing Ties with Pipe, twistable 90°

ТҮРЕ	Drawing	Width (W)	Length (L)	Bundle Ø max.	Attach to Ø	Material	Colour	Tools	Article-No.
T50ROC15-18CBTO-SD- SET		4.6	202.0	45.0	15.0 - 18.0	PA66HS, PA66HIRHS	Black (BK)	2-10	156-00419

All dimensions in mm. Subject to technical changes.

Recommended Tools											
2	3	4	5	6	7	8	9	10			
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	MK9			

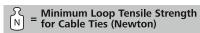
For more information on toolings please refer to the Application Tooling chapter.

Material Specification Overview

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Aluminium-alloy	AL	-40 °C to +180 °C	Natural (NA)		Corrosion resistant Antimagnetic	RoHS
Chloroprene	CR	-20 °C to +80 °C	Black (BK)		Weather-resistant High yield strength	RoHS
Ethylene Tetrafluoroethylene	E/TFE	-80 °C to +170 °C	Blue (BU)	UL94 V0	Resistance to radioactivity UV-resistant, not moisture sensitive Good chemical resistance to: acids, bases, oxidizing agents	RoHS
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL94 HB	Limited brittleness sensitivity Flexible at low temperature Not moisture sensitive Robust on impacts	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	Bio-plastic, derived from vegetable oil Strong impact resistance at low temperature Very low moisture absorption Weather-resistant Good chemical resistance	HF RoHS
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	Good chemical resistance to: acids, bases, oxidizing agents UV-resistant	HF RoHS
Polyamide 4.6	PA46	-40 °C to +150 °C (5000 h), +195 °C (500 h)	Natural (NA), Grey (GY)	UL94 V2	Resistance to high temperatures Very moisture sensitive Low smoke sensitive	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL94 V2	High yield strength	RoHS
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL94 HB	Limited brittleness sensitivity Higher flexibility at low temperature	RoHS
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL94 V2	High yield strength	HF RoHS
Polyamide 6.6, glass-fibre reinforced	PA66GF13, PA66GF15	-40 °C to +105 °C	Black (BK)	UL94 HB	Good resistance to: lubricants, vehicle fuel, salt water and many solvents	HF RoHS
Polyamide 6.6, heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL94 V2	High yield strength Modified elevated max. temperature UV-resistant	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL94 V2	High yield strength Modified elevated max. temperature	HF RoHS
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	Limited brittleness sensitivity Higher flexibility at low temperature	RoHS
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL94 HB	Limited brittleness sensitivity Higher flexibility at low temperature Modified elevated max. temperature High yield strength, UV-resistant	HF RoHS
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL94 HB	Limited brittleness sensitivity Higher flexibility at low temperature Modified elevated max. temperature	RoHS
Polyamide 6.6, high impact modified, scan black	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	Limited brittleness sensitivity Higher flexibility at low temperature	HF RoHS
Polyamide 6.6, UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 V2	High yield strength UV-resistant	HF RoHS

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

HF = Halogenfree LFH = Limited Fire Hazard RoHS = Restriction of Hazardous Substances '





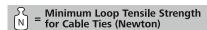
^{*}These details are only rough guide values. They should not be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

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MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Polyamide 6.6, with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL94 HB	High yield strength Metal and X-Ray detectable	HF RoHS
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL94 V0	High yield strength Low smoke emission	HF LFH RoHS
Polyamide 6.6 V0, High Oxygen Index	PA66V0-HOI	-40 °C to +85 °C, (+105 °C, 500 h)	White (WH)	UL94 V0	High yield strength Low smoke emissions	HF LFH RoHS
Polyester	SP	-50 °C to +150 °C	Black (BK)	Halogen free	UV-resistant Good chemical resistance to: most acids, alkalis and oils	HF LFH RoHS
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL94 V0	Resistance to radioactivity Not moisture sensitive Good chemical resistance to: acids, bases, oxidizing agents	HF LFH RoHS
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL94 HB	Low moisture absorption Good chemical resistance to: most acids, alcohol and oils	HF RoHS
Polyolefin	РО	-40 °C to +90 °C	Black (BK)	UL94 V0	Low smoke emissions	HF LFH RoHS
Polypropylene	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL94 HB	Floats in water Moderate yield strength Good chemical resistance to: organic acids	HF RoHS
Polypropylene, Ethylene- Propylene-Dien- Terpolymere-rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL94 HB	Good resistance to high temperatures Good chemical and abrasion resistance	HF RoHS
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL94 HB	 Floats in certain liquids Metal and X-Ray detectable Heat resistant Moderate yield strength Good chemical resistance 	RoHS
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL94 V0	Low moisture absorption Good chemical resistance to: acids, ethanol and oil	RoHS
Stainless Steel, Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	Non burning	Corrosion resistant Antimagnetic Weather resistant Outstanding chemical resistance	HF LFH RoHS
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL94 HB	High elasticity Good chemical resistance to: acids, bases and oxidizing agents	HF RoHS

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