

1-piece fixing ties with fir tree, with disc, for round holes

Fir tree parts FT5

Features and benefits

- Cable tie head always situated in defined position
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises ingress of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Parts with an anti-slip engraving, such as the T30SOS-AS-FT5-E, to prevent the harness from slipping sideways



Fir tree foot parts can be used for a variety of panel thicknesses.

Material information
on page 22.

AS = Anti-Slip Ties,
inhibit sideways
movement on the
bundle.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18RDP5		4.9 - 5.1	3.0 - 4.0	2.5	110.0	20.0	80	PA66	BK	1-2;4-6;25	150-55610
		4.9 - 5.1	3.0 - 4.0	2.5	110.0	20.0	80	PA66HS	BK	1-2;4-6;25	157-00012
T30SOS-AS-FT5-E		4.8 - 5.2 M6	0.7 - 4.5	3.5	129.0	25.0	200	PA46	GY	1-2;4-6;25	157-00448

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.

Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T50SOSFT6.5-E4		6.3 - 7.0	0.6 - 4.2	4.6	35.0	225	PA66HS	BK	1-2;4-7;25	157-00308
T50SOSFT6E		6.5 - 7.0	0.75 - 3.0	4.7	32.0	150	PA46	GY	1-2;4-7;25	126-00100
		6.5 - 7.0	0.75 - 3.0	4.7	32.0	150	PA66HIRHS	BK	1-2;4-7;25	155-05800
T50SOSFT6D10E		5.8 - 6.2	0.8 - 5.5	4.6	32.0	200	PA46	GY	1-2;4-6;25	157-00028
		5.8 - 6.2	0.8 - 5.5	4.6	32.0	225	PA66HS	BK	1-2;4-6;25	157-00045
T50SOSFT6E2		6.3 - 7.0	0.6 - 4.2	4.6	35.0	180	PA66HS	BK	1-2;4-7;25	157-00085

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.



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Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT6LG-E		6.3 - 7.0	0.7 - 7.0	4.6	35.0	180	PA46	GY	1-2;4-7;25	157-00166
T50SOSFT6LGE		6.3 - 7.0	0.7 - 7.0	4.6	35.0	180	PA66HS	BK	1-2;4-7;25	157-00228
T50SOSFT6.5LG-E4		6.35 (hexagonal) 6.5	0.6 - 8.25	4.6	35.0	225	PA66HS	GY	1-2;4-7;25	157-00303
OS160FT6		6.3 - 6.7	0.7 - 5.0	5.3	30.0	200	PA66HS	BK	1;3;7;9-10;25	157-00096
T30SOS-AS-FT6-E		6.3 - 6.7	0.6 - 4.0	3.5	25.0	200	PA66HS	BK	1-2;4-6;25	157-00243
T50ROSFTQM6		M6	3.25 - 7.0	5.1	50.0	222	PA66HIRHSUV	BK	1;3;5;7;9-10;25	157-00112
		M6	3.25 - 7.0	5.1	50.0	225	PA46	BN	1;3;5;7;9-10;25	157-00144
T50SOSFT6E3		6.1 - 6.9	0.7 - 3.5	4.7	35.0	150	PA66HIRHS	BK	1-2;4-7;25	157-00241
T50SOSFT6E1		6.3 - 7.0	0.7 - 3.0	4.7	35.0	150	PA46	GY	1-2;4-6;25	157-00059
		6.3 - 7.0	0.7 - 3.0	4.7	35.0	150	PA66HIRHS	BK	1-2;4-6;25	157-00033
T50SOSFT6LG-E2		6.1 - 6.9 6.1 - 6.6 (hexagonal)	0.6 - 8.25	4.6	35.0	180	PA66HIRHS	BK	1-2;4-7;25	157-00242

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.

Fir tree parts FT7

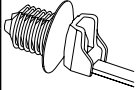
TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT7-E		6.8 - 7.2	0.6 - 6.0	4.7	165.0	30.0	225	PA66HS	BK	1-2;4-6;25	157-00185
FT220DP7		6.8 - 7.2	0.8 - 5.0	4.7	232.0	40.0	225	PA66	BK	1-2;4-6;25	150-01700
OS170-FT7-LH		6.8 - 7.2	0.6 - 4.5	5.3	170.0	30.0	147	PA66	BK	1;3;7;9-10;25	157-00019
OS180FT7LH		6.35 (hexagonal) 6.5 - 7.0	0.6 - 4.5	5.3	180.0	30.0	200	PA66	GY	1;3;7;9-10;25	157-00068

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.



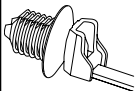
Fir tree parts FT8

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT8E		8.0 - 8.5	0.6 - 6.0	4.6	163.0	35.0	225	PA46	GY	1-2;4-7;25	157-00115
		8.0 - 8.5	0.6 - 6.0	4.6	163.0	35.0	225	PA66HS	BK	1-2;4-7;25	157-00072

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.

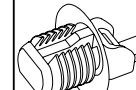
Fir tree parts FT9

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T50SOSFT9E		8.8 - 9.2	0.8 - 9.0	4.7	170.0	45.0	225	PA66HS	BK	1-2;4-6;25	157-00280

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.

Fir tree parts FT12

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T60SOSFT12-E		12.0 - 12.5 M14 x 1.5	1.0 - 6.0	5.5	161.5	30.0	300	PA66HS	BK	1;3;7;9-10;25	157-00155

Recommended Tools: 1=MK10-SB, 3=MK21, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For more information on toolings please refer to the Application Tooling chapter on page 346.

All dimensions in mm. Subject to technical changes.



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 Rubber	CR	-20 °C to +80 °C	Black (BK)		• Weather resistant • High yield strength	RoHS
Ethylene Tetrafluoroethylene (Tefzel®)	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 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)	UL 94 HB	• Limited brittleness sensitivity • Flexible at low temperature • Not moisture sensitive • Robust on impact	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 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)	UL 94 HB	• Good chemical resistance to acids, bases, oxidizing agents • UV resistant	HF RoHS
Polyamide 4.6	PA46	-40 °C to +130 °C, (+150 °C, 5000 h; +195 °C, 500 h)	Natural (NA), Grey (GY)	UL 94 V2	• Resistance to high temperatures • Very moisture sensitive • Low smoke sensitivity	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2	• High yield strength	RoHS
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 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)	UL 94 V2	• High yield strength	HF RoHS
Polyamide 6.6, glass-fibre reinforced	PA66GF13	-40 °C to +105 °C	Black (BK)	UL 94 HB	• Good resistance to lubricants, fuels, salt water and solvents	HF RoHS
Polyamide 6.6, heat and UV-stabilised	PA66HSUV	-40 °C to +105 °C	Black (BK)	UL 94 V2	• High yield strength • Modified elevated maximum temperature • UV resistant	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2	• High yield strength • Modified elevated maximum temperature	HF RoHS
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	• Limited brittleness sensitivity • Higher flexibility at low temperature	RoHS
Polyamide 6.6, high impact modified, heat and UV-stabilised	PA66HIRHSUV	-40 °C to +110 °C	Black (BK)	UL 94 HB	• Limited brittleness sensitivity • Higher flexibility at low temperature • Modified elevated maximum temperature • High yield strength, UV resistant	RoHS
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB	• Limited brittleness sensitivity • Higher flexibility at low temperature • Modified elevated maximum temperature	RoHS
Polyamide 6.6, high impact modified, scan black)	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 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)	UL 94 V2	• High yield strength • UV resistant	HF RoHS

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)	UL 94 HB	- High yield strength - Metal and X-Ray detectable	HF RoHS
Polyamide 6.6, with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame-retardant	- High yield strength - Metal and X-Ray detectable	HF RoHS
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	- High yield strength - Low smoke emission	HF LFH RoHS
Polyester	SP	-50 °C to +150 °C	Black (BK)		- UV resistant - Good chemical resistance to most acids, bases and oils	HF LFH RoHS
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V2	- Resistance to radioactivity - Not moisture sensitive - Good chemical resistance to acids, bases, oxidising agents	HF LFH RoHS
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	- Low moisture absorption - Good chemical resistance to most acids, bases, alcohol, oils	HF RoHS
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0	Low smoke emissions	HF LFH RoHS
Polypropylene	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL 94 HB	- Floats in water - Moderate yield strength - Good chemical resistance to acids, bases and solvents	HF RoHS
Polypropylene, Ethylene Propylene Diene Terpolymer rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB	- Good resistance to high temperature - Good chemical and abrasion resistance	HF RoHS
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	- Metal and X-Ray detectable - Heat resistant - Moderate yield strength - Good chemical resistance	RoHS
Polypropylene with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame-retardant	- High yield strength - Metal and X-Ray detectable	HF RoHS
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	- Low moisture absorption - Good chemical resistance to acids, bases, salts, alcohol, oils	RoHS
Stainless Steel, Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	- Corrosion resistant - Antimagnetic - Weather resistant - Chemical resistance - SS316 also resistant against seawater, salt spray and anorganic acids	HF LFH RoHS
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	- High elasticity - Good chemical resistance to acids, bases and oxidising agents	HF RoHS

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

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

HF = Halogen Free

LFH = Limited Fire Hazard

RoHS = Restriction of Hazardous Substances

**Further colours available on request.



= Minimum Loop Tensile Strength
for Cable Ties (newton)

**For more material information
please visit our website.**