



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

Fir tree parts FT4

Features and benefits

- Pre-assembled 2-piece fixing tie with fir tree foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes



These fir tree fixings can also be used in threaded, blind holes.

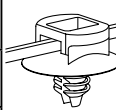
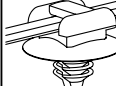
Material information on page 22.

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18RFT4		3.3 - 4.0 M4	1.0 - 3.0	2.5	100.0	20.0	80	PA66HSUV	BK	1-2;4-6;25	156-00339

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 FT5

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T18RFT5		4.5 - 5.0	0.70 - 3.00	2.5	100.0	22.0	80	PA66HS PA66HIRHS	BK	1-2;4-6;25	156-01225
T30RFT5		4.5 - 5.0	0.7 - 3.0	3.5	150.0	34.0	135	PA46	GY	1-2;4-6;25	156-01316
		4.5 - 5.0	0.7 - 3.0	3.5	150.0	34.0	135	PA66HS	BK, GY	1-2;4-6;25	150-55940
		4.5 - 5.0	0.7 - 3.0	3.5	150.0	34.0	135	PA66HS PA66HIRHS	BK	1-2;4-6;25	150-55850
T50SOSFT5		4.5 - 5.0	0.7 - 3.0	4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-06200
T50RFT5		4.5 - 5.0	0.7 - 3.0	4.6	200.0	45.0	222	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00025
		4.5 - 5.0	0.7 - 3.0	4.6	202.0	45.0	225	PA46	GY	1-2;4-7;25	156-00984
		4.5 - 5.0	0.7 - 3.0	4.6	202.0	45.0	225	PA66HS PA66	BK, GY	1-2;4-7;25	150-55941
T50SOSFT5SD		4.5 - 5.0	0.7 - 3.0	4.6	150.0	35.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00432

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.



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

Fir tree parts FT5

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T18RFT5-MOD		4.5 - 5.0	0.7 - 3.0	2.5	100.0	22.0	80	PA66HS PA66HIRHS	BK	1-2;4-6;25	156-01270
T50RFT5.5SD		5.0 - 5.7	0.7 - 4.5	4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00806
T30RFT5		4.5 - 5.0	0.7 - 3.0	3.5	150.0	34.0	135	PA46	NA, GY	1-2;4-6;25	150-55948

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 FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
T18RFT6		6.4 - 7.1	0.75 - 3.00	2.5	100.0	18.0	PA66HS PA66HIRHS	BK	1-2;4-6;25	156-01754
PT2AFT6LG		6.4 - 7.1	0.75 - 6.0	3.4	145.0	35.0	PEEK PA46	BGE, GY	1-2;4-6;25	156-01336
T30RFT6LG		6.5 - 7.0	0.75 - 6.0	3.5	150.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-6;25	150-31090
T50SFT6LG		6.5 - 7.0	0.75 - 6.0	4.6	160.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31093
T50RFT6LG		6.5 - 7.0	0.75 - 6.0	4.6	200.0	45.0	PA46	GY	1-2;4-7;25	150-31098
T50ROSFT6LG		6.5 - 7.0	0.75 - 6.0	4.6	200.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31099
T50RFT6LG		6.5 - 7.0	0.75 - 6.0	4.6	202.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31091
T80IFT6LG		6.5 - 7.0	0.75 - 6.0	4.7	305.0	75.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-31096

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.



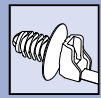
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Fir tree parts FT6

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
T30RFT6SD		6.4 - 7.1	0.75 - 3.0	3.5	150.0	35.0	PA66HS PA66HIRHS	BK	1-2;4-6;25	150-52690
T50ROSFT6SD		6.4 - 7.1	0.75 - 3.0	4.6	200.0	45.0	PA46	GY	1-2;4-7;25	156-00085
		6.4 - 7.1	0.75 - 3.0	4.6	200.0	46.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-05902
T50RFT6LGSD-HEX		6.25 - 6.75 6.1 - 6.6 (hexagonal)	0.7 - 5.0	4.6	202.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-01705
T50SFT6LG1SD		6.5 - 7.0	0.6 - 6.0	4.6	160.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	156-00154
T80RFT6LG1SD		6.5 - 7.0	0.6 - 6.0	5.0	205.0	50.0	PA66HS PA66HIRHS	BK	1;3;7;9-10;25	133-00105
T30RFT6		6.4 - 7.1	0.75 - 3.0	3.5	150.0	30.0	PA66HS PA66HIRHS	BK	1-2;4-6;25	150-77950
T50RFT6		6.4 - 7.1	0.75 - 3.0	3.5	150.0	34.0	PA46	NA, GY	1-2;4-6;25	156-01692
		6.4 - 7.1	0.75 - 3.0	4.6	202.0	45.0	PA46	GY	1-2;4-7;25	156-01695
		6.4 - 7.1	0.75 - 3.0	4.6	202.0	45.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-77941
T50RDHFT6		6.4 - 7.1	0.75 - 3.0	4.7	210.0	19.0	PA66HS PA66HIRHS	BK	1-2;4-7;25	150-77936
T30RFT6D10		5.8 - 6.2	0.8 - 4.3	3.5	150.0	32.0	PA66HS PA66HIRHS	BK	1-2;4-6;25	150-74890
T50RSOC15FT6LG		6.4 - 7.1	0.8 - 6.0	4.6	202.0	50.0	PA46	GY	1-2;4-6;25	156-00657

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.	Material	Colour	Tools	Article-No.
T50RFT7		6.5 - 7.0	0.8 - 7.0	4.6	202.0	45.0	PA66HS	BK	1-2;4-7;25	111-85871
T50IFT7		6.5 - 7.0	0.8 - 7.0	4.6	300.0	85.0	PA66HS	BK	1-2;4-7;25	150-00700
T50RFT7HD		6.2 - 7.2	0.8 - 7.0	4.6	202.0	50.0	PA46	BN	1-2;4-7;25	156-00457

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 FT8

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Tools	Article-No.
T30RFT8		7.7 - 8.0	0.8 - 6.0	3.6	150.0	32.0	135	PA66HS	BK	1-2;4-6;25	111-85881
T50ROSFT8		7.7 - 8.0	0.8 - 6.0	4.6	200.0	45.0	225	PA66HS	BK	1-2;4-7;25	156-00360
T50RFT8		7.7 - 8.0	0.8 - 6.0	4.6	202.0	45.0	225	PA66HS	BK	1-2;4-7;25	111-85880
T40RFT8GSD		8.0 - 8.5	1.5 - 4.0	4.0	180.0	40.0	180	PA66HS PA66HIRHS	BK	1-2;4-6;25	156-00104
T50RFT8GSD		8.0 - 8.5	1.5 - 4.0	4.6	202.0	45.0	225	PA46	GY	1-2;4-7;25	156-00235
		8.0 - 8.5	1.5 - 4.0	4.6	202.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-7;25	133-00034

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.		Material	Colour	Tools	Article-No.
T120IFT9		9.0 - 10.6	5.0 - 11.0	7.6	300.0	80.0	535	PA66HIR(S)	BK	1;3;7;9-10;25	156-00200
		9.0 - 10.6	5.0 - 11.0	7.6	300.0	80.0	535	PA66HS PA66HIRHS	BK	1;3;7;9-10;25	156-01252
T50RFT9LP		8.8 - 9.2	0.80 - 9.00	4.6	200.0	45.0	225	PA66HS PA66HIRHS	BK	1-2;4-6;25	156-01201
T120RFT9A		8.7 - 9.2	1.0 - 6.5	7.6	380.0	105.0	535	PA66HIRHSUV	BK	1;3;7;9-10;25	156-00067

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 FT9

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
WSSFT9B		8.7 - 9.2	1.0 - 15.8	12.7	228.0	57.0	535	PA66HIRHSUV	BK	3;5;7;9-10	156-00072
WSRFT9B		8.7 - 9.2	1.0 - 15.8	12.7	383.5	105.0	535	PA66HIRHSUV	BK	3;5;7;9-10	156-00074
WSIFT9A		8.7 - 9.2	1.0 - 6.5	7.6	387.0	82.5	535	PA66HIRHSUV	BK	1;3;7;9-10;25	156-00069
WSRFT9A		8.7 - 9.2	1.0 - 6.5	12.7	383.5	105.0	535	PA66HIRHSUV	BK	3;5;7;9-10	156-00070
T120IFT9A		8.8 - 9.2	1.0 - 6.5	7.6	300.0	80.0	535	PA66HS PA66HIRHS	BK	1;3;7;9-10;25	156-01459

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 FT10

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	Material	Colour	Tools	Article-No.
V150RFT10		9.7 - 10.0	0.8 - 5.0	3.3	150.0	35.0	PA66 PA66HS	BK	1-2;4-6;25	156-01233
T50RFT10		9.7 - 10.0	0.8 - 5.0	4.6	200.0	45.0	PA66HS	BK	1-2;4-7;25	111-85810
T50ROSFT10		9.7 - 10.0	0.8 - 5.0	4.6	200.0	45.0	PA66HS	BK	1-2;4-7;25	156-00120

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 FT11

TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Tools	Article-No.
T120RFT11		6.5 - 7.0	1.0 - 10.0	7.6	387.0	105.0	535	PA66HSUV	BK	1;3;7;9-10;25	156-00351

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.



N = Minimum Loop Tensile Strength
for Cable Ties (newton)

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