



Cable Ties and Fixings

Cable Ties With Fixing Elements

1-Piece Fixing Ties with Fir Tree, with Disc, for Round Holes

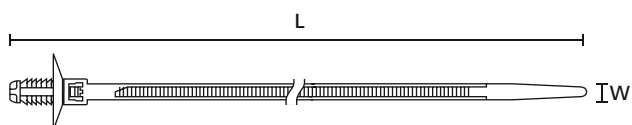
Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

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 access of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Versions with "-AS" avoid lateral adjustment and sealing-off cable bundles but it is still possible to move the tie around the cable bundle



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



Reference for dimensions only



**Material specification
please see page 22.**

Fir Tree Parts FT4

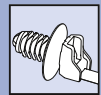
PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T30SOS-AS-FT4.5-E-PA66HS-BK		4.3 - 4.7	0.7 - 3.0	3.5	128.0	25.0	200	16.0

All dimensions in mm. Subject to technical changes.

Fir Tree Parts FT5

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T18RDP5-PA66-BK		4.9 - 5.1	3.0 - 4.0	2.5	110.0	20.0	80	13.0
OS160FT5-PA66HSW-BK		4.5 - 5.0	1.6 - 3.2	4.0	163.0	30.0	100	13.0

All dimensions in mm. Subject to technical changes.



1-Piece Fixing Ties with Fir Tree, with Disc, for Round Holes

Fir Tree Parts FT6

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T50SOSFT6.5-E4-PA46-BN		6.0 - 7.0	0.6 - 4.2	-	161.5	35.0	225	16.0
T50SOSFT6.5-E4-PA66HS-BK		6.0 - 7.0	0.6 - 4.2	4.6	161.5	35.0	225	16.0
T50SOSFT6E-PA46-GY		6.5 - 7.0	0.8 - 3.0	4.7	160.0	32.0	150	16.0
T50SOSFT6E-PA66HIRHS-BK		6.5 - 7.0	0.8 - 3.0	4.7	160.0	32.0	150	16.0
T50SOSFT6D10E-PA46-GY		5.8 - 6.2	0.8 - 5.5	4.6	163.0	32.0	200	9.8
T50SOSFT6D10E-PA66HS-BK		5.8 - 6.2	0.8 - 5.5	4.6	163.0	32.0	225	9.8
T50SOSFT6-E2-PA66HS-BK		6.3 - 7.0	0.6 - 4.2	4.6	160.0	35.0	180	16.0
T50SOSFT6-E2-PA46-BN		6.3 - 7.0	0.6 - 4.2	4.6	161.0	35.0	180	16.0
T50SOSFT6.5LG-E4-PA66HIRHSUV-BK		6.1 - 6.9	0.6 - 8.3	4.6	167.9	35.0	225	16.0
T50SOSFT6.5LG-E4-PA66HIRHS-NA		6.1 - 6.9	0.6 - 8.3	4.6	167.9	35.0	225	16.0
T50SOSFT6.5LG-E4-PA46-BN		6.1 - 6.9	0.6 - 8.3	4.6	168.0	35.0	225	16.0
T50SOSFT6.5LG-E4-PA66HS-GY		6.1 - 6.9	0.6 - 8.3	4.6	168.0	35.0	225	16.0
T50ROSFT6.5LG-E4-PA66HIRHS-BK		6.1 - 6.9	0.6 - 8.3	4.6	218.1	50.0	225	16.0
T50SOSFT6LG-E-PA46-GY		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	180	16.0
T50SOSFT6LGE-PA66HS-BK		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	180	16.0
T50SOSFT6LG-E-PA66HS-BK		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	180	16.0
T50SOSFT6.5LG-E4X-PA66HS-NA		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	225	16.0
T50SOSFT6.5LG-E4X-PA66HIRHSUV-BK		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	225	16.0
T50SOSFT6.5LG-E4X-PA66HS-BK		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	225	16.0
T50SOSFT6.5LG-E4X-PA66HS-YE		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	225	16.0
T50SOSFT6LG-E-PA66HS-BK		6.3 - 7.0	0.7 - 7.0	4.6	165.0	35.0	180	16.0
OS160FT6HEX-PA46-GY		6.35	0.7 - 5.0	5.3	170.0	30.0	200	16.0
OS160FT6HEX-PA66HS-BK		6.35	0.7 - 5.0	5.3	170.0	30.0	200	16.0
OS160FT6-PA66HSW-GY		6.5	0.7 - 5.0	5.3	170.0	30.0	200	16.0
T30SOS-AS-FT6-E-PA66HS-BK		6.3 - 6.7	0.6 - 4.0	3.5	129.4	25.0	200	16.0
T30SOS-AS-FT6E-PA66HS-BK		6.3 - 6.7	0.6 - 4.0	3.5	129.4	25.0	200	16.0
T30SOS-AS-FT6-E-PA46-GY		6.3 - 6.7	0.6 - 4.0	3.5	129.4	25.0	200	16.0
T50ROSFTQM6-PA66HIRHSUV-BK		M6	0.6 - 7.0	5.1	203.6	50.0	222	15.88
T50ROSFTQM6-PA46-BN		M6	0.6 - 7.0	5.1	203.6	50.0	222	15.88
T50SOSFT6-E3-PA66HIRHS-BK		6.1 - 6.9	0.7 - 3.5	4.7	161.0	35.0	150	16.0
T50SOSFT6E1-PA66HIRHS-BK		6.3 - 7.0	0.7 - 3.0	4.7	161.4	35.0	150	16.0
T50SOSFT6E1-PA66HS-BK		6.3 - 7.0	0.7 - 3.0	4.7	161.4	35.0	150	16.0
T50SOSFT6E1-PA46-GY		6.3 - 7.0	0.7 - 3.0	4.7	161.4	35.0	225	16.0

All dimensions in mm. Subject to technical changes.





Cable Ties and Fixings

Cable Ties With Fixing Elements

1-Piece Fixing Ties with Fir Tree, with Disc, for Round Holes

Fir Tree Parts FT6

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T30S0S-AS-FT6LG-E2-PA46-GY		6.1 - 6.9	0.6 - 8.3	3.5	135.0	25.0	200	17.0
T30S0S-AS-FT6LG-E2-PA66HS-BK		6.1 - 6.9	0.6 - 8.3	3.5	135.0	25.0	200	17.0
T50S0SFT6LG-E2-PA66HS-GY		6.1 - 6.9	0.6 - 8.3	4.6	167.0	35.0	180	16.0
T50S0SFT6LG-E2-PA46-BN		6.1 - 6.9	0.6 - 8.3	4.6	167.0	35.0	180	16.0
T50ROSFT6LG-E2-PA66HIRHS-BK		6.1 - 6.9	0.6 - 8.3	4.6	217.0	50.0	180	16.0
T50S0SFT6LG-E2-PA46-GY		6.1 - 6.9, 6.1 - 6.6 (hexagonal)	0.6 - 8.3	4.6	167.0	35.0	180	16.0
T50S0SFT6LG-E2-PA66HIRHS-BK		6.1 - 6.9, 6.1 - 6.6 (hexagonal)	0.6 - 8.3	4.6	167.0	35.0	180	16.0
T50S0SFT6LG-E4-PA66HS-BK		6.3 - 7.0	0.8 - 7.0	4.9	165.0	31.0	200	22.0
T50S0SFT6LGU-PA66HS-BK		6.5 - 7.2	0.6 - 8.5	5.1	169.0	35.0	225	16.0
T50ROSFT6LGU-PA66HS-BK		6.5 - 7.2	0.6 - 8.5	5.1	220.0	50.0	225	15.9
T50RTM25E-PA66HIRHS-BK		6.25 - 7.0	2.3 - 13.9	4.7	209.6	50.0	222	12.6
T50RTM25E-PA66HS-BK		6.25 - 7.0	2.3 - 13.9	4.7	213.8	50.8	222	12.6
T50SDP6-PA66HIRHS-BK		6.3 - 7.1	0.8 - 7.0	5.0	170.0	31.0	225	22.0

All dimensions in mm. Subject to technical changes.

Fir Tree Parts FT7

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T50S0SFT7-E-PA66HS-BK		6.8 - 7.2	0.6 - 6.0	4.7	165.0	30.0	225	16.5
FT220DP7-PA66-BK		6.8 - 7.2	0.8 - 5.0	4.7	232.0	40.0	225	16.0
OS170-FT7-LH-PA66HSW-BK		6.8 - 7.2	0.6 - 4.5	5.3	170.0	30.0	147	16.0
OS170-FT7-LH-PA66-BK		6.8 - 7.2	0.6 - 4.5	5.3	170.0	30.0	147	16.0
OS170-FT7-PA66-BK		6.8 - 7.2	0.6 - 4.5	5.3	170.0	30.0	147	16.0
OS180FT7LH-PA46-NA		6.5 - 7.0, 6.35 (hexagonal)	0.6 - 4.5	5.3	180.0	30.0	200	16.0
OS180FT7LH-PA66-BK		6.5 - 7.0, 6.35 (hexagonal)	0.6 - 4.5	5.3	180.0	30.0	200	16.0
OS180FT7LH-PA66-GY		6.5 - 7.0, 6.35 (hexagonal)	0.6 - 4.5	5.3	180.0	30.0	200	16.0
OS180FT7LH-PA66HS-BK		6.5 - 7.0, 6.35 (hexagonal)	0.6 - 4.5	5.3	180.0	30.0	200	16.0

All dimensions in mm. Subject to technical changes.



1-Piece Fixing Ties with Fir Tree, with Disc, for Round Holes

Fir Tree Parts FT8

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T50S0SFT8E-PA46-GY		8.0 - 8.5	0.6 - 6.0	4.6	163.0	35.0	225	16.0
T50S0SFT8E-PA66HS-BK		8.0 - 8.5	0.6 - 6.0	4.6	163.0	35.0	225	16.0

All dimensions in mm. Subject to technical changes.

Fir Tree Parts FT9

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
T50S0SFT9E-PA66HS-BK		8.8 - 9.2	0.8 - 9.0	4.7	170.0	45.0	225	16.3

All dimensions in mm. Subject to technical changes.



Material specification
please see page 22.

Fir Tree Parts FT11

PART DESCRIPTION	Drawing	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Disc Ø
CM170FT11J-PA66W-BK		10.8 - 11.2	3.0 - 14.0	8.0	170.0	30.0	250	16.0

All dimensions in mm. Subject to technical changes.



Material Specification Overview

MATERIAL	Material Shortcut	Operating Temperature	Colour*	Flammability
Aluminium alloy	AL	-40 °C to +180 °C	Natural (NA)	
Chloroprene Rubber	CR	-20 °C to +80 °C	Black (BK)	
Ethylene Tetrafluoroethylene (Tefzel®)	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL 94 HB
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB
Polyamide 11, UV-resistant	PA11W	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB
Polyamide 4.6	PA46	-40 °C to +130 °C, (+150 °C, 5000 h; +195 °C, 500 h)	Natural (NA), Grey (GY)	UL 94 V2
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2
Polyamide 6, glass-fibre reinforced	PA6GF30	-40 °C to +100 °C	Black (BK)	UL 94 HB
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 HB
Polyamide 6, high impact modified, heat stabilised	PA6HIRHS	-80 °C to +110 °C	Black (BK)	UL 94 HB
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, glass-fibre reinforced	PA66GF13	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 6.6, glass-fibre reinforced	PA66GF15	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 6.6, heat and UV stabilised	PA66HSUV	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL 94 V2
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSUV	-40 °C to +110 °C	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, heat and UV stabilised (only for cable ties for Autotool System 3080)	PA66HIRHSUV	-40 °C to +95 °C, (+105 °C, 5000 h; +145 °C, 500 h)	Black (BK), Natural (NA)	UL 94 HB
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB
Polyamide 6.6, high impact modified, scan black	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB

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.

*Further colours available on request.

 = Minimum Loop Tensile Strength for Cable Ties (Newton)

MATERIAL	Material Shortcut	Operating Temperature	Colour*	Flammability
Polyamide 6.6, UV resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2
Polyamide 6.6, UV-stabilised	PA66UV	-40 °C to +85 °C	Black (BK), Natural (NA)	UL 94 V2
Polyamide 6.6, with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB
Polyamide 6.6, with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame retardant
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0
Polyaryletherketone	PAEK	-55 °C to +200 °C	Beige (BGE)	UL 94 V0
Polyester	SP	-50 °C to +150 °C	Black (BK)	
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0
Polyphenylene Sulfide	PPS	-40 °C to +150 °C	Black (BK), Grey (GY)	UL 94 V0
Polypropylene, Ethylene Propylene Diene Terpolymer rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB
Polypropylene 20% Talkum	PPT20	-40 °C to +65 °C	Black (BK)	UL 94 HB
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB
Polypropylene with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame retardant
Polyvinylidene Fluoride	PVDFX	-50 °C to +150 °C	Natural (NA)	UL 94 V0
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0
Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB

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*Further colours available on request.



= Minimum Loop Tensile Strength
for Cable Ties (Newton)

Tip: Material shortcut is part of our Part Description name

Product series name (indicating tie type, clip and harness routing variant)

Material code

Colour code (details on page 326)

T50ROSEC5A-PA66HS/PA66HIRHS-BK