



## Bundling clips with fir tree for round holes

### for distance routing

Originally designed for the automotive industry, these clips offer simple and easy methods of securing cables, hoses or pipes.

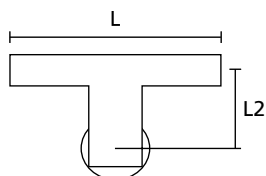
#### Features and benefits

- Easy to install without the need for a tool
- One fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes
- Disc covers the hole to prevent dirt and dust gaining access
- Bundle runs in a set distance to the hole



COW Clip used as tape-on clip.

Material information on page 22.



Stand Off Clip SOC

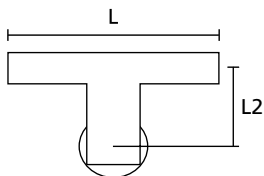
TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Length (L2)	Material	Colour	Article-No.
COW20DP7		6.3 - 7.0	0.8 - 4.5	42.0	20.0	PA66HS	Brown (BN)	151-03100
COW30DP7		6.1 - 6.6 (hexagonal) 6.3 - 7.0	0.8 - 4.5	42.0	30.0	PA66	Black (BK)	151-03200
SOC4MFT6		6.5 - 7.0	0.7 - 5.1	55.0	20.32	PA66HIRHS	Black (BK)	155-30902
SOC5FT6LG		6.1 - 6.6 (hexagonal) 6.5 - 7.0	0.7 - 5.1	55.0	21.0	PA66HIRHS	Black (BK)	151-00074
SOC6		6.1 - 6.6 (hexagonal) 6.3 - 7.0	0.8 - 3.5	55.0	22.0	PA66HIRHS	Black (BK)	151-00023
SOC7FT6		6.4 - 7.1	0.7 - 5.75	56.0	31.0	PA66HIRHSUV	Black (BK)	151-00629
SOC8FT6LG		6.5 - 7.0	0.7 - 5.1	40.0	30.0	PA66HIRHS	Black (BK)	151-02265
CH20FT6		6.5 - 7.0	0.8 - 2.5	50.0	20.0	PA66HIRHS	Black (BK)	151-00830
BC90FT6		6.1 - 6.9	0.7 - 6.0	25.0	25.0	PA66HIRHSUV	Black (BK)	151-00993

All dimensions in mm. Subject to technical changes.



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TYPE	Drawing	Hole Ø (FH)	Panel Thickness	Length (L)	Length (L2)	Material	Colour	Article-No.
SOC10405		6.3 - 6.7	0.7 - 3.5	55.0	20.0	PA66HIRHS	Black (BK)	151-01840
SOC8FT6		6.2 - 6.8	0.7 - 5.75	55.9	42.5	PA66HIRHS	Natural (NA)	151-00650
SOC8FT8		7.6 - 10.0 M10 x 1.5	0.6 - 5.5	61.0	15.9	PA66HIRHS	Natural (NA)	151-02432
SOC23SO18		6.1 - 6.9	0.6 - 4.7	50.0	22.6	PA66HIRHS	Black (BK)	133-03836

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)		<ul style="list-style-type: none"> <li>Corrosion resistant</li> <li>Antimagnetic</li> </ul>	RoHS
Chloroprene Rubber	CR	-20 °C to +80 °C	Black (BK)		<ul style="list-style-type: none"> <li>Weather resistant</li> <li>High yield strength</li> </ul>	RoHS
Ethylene Tetrafluoroethylene (Tefzel®)	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0	<ul style="list-style-type: none"> <li>Resistance to radioactivity</li> <li>UV resistant, not moisture sensitive</li> <li>Good chemical resistance to acids, bases, oxidizing agents</li> </ul>	RoHS
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Flexible at low temperature</li> <li>Not moisture sensitive</li> <li>Robust on impact</li> </ul>	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Bio-plastic, derived from vegetable oil</li> <li>Strong impact resistance at low temperature</li> <li>Very low moisture absorption</li> <li>Weather resistant</li> <li>Good chemical resistance</li> </ul>	HF RoHS
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good chemical resistance to acids, bases, oxidizing agents</li> <li>UV resistant</li> </ul>	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	<ul style="list-style-type: none"> <li>Resistance to high temperatures</li> <li>Very moisture sensitive</li> <li>Low smoke sensitivity</li> </ul>	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> </ul>	RoHS
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> </ul>	HF RoHS
Polyamide 6.6, glass-fibre reinforced	PA66GF13	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good resistance to lubricants, fuels, salt water and solvents</li> </ul>	HF RoHS
Polyamide 6.6, heat and UV-stabilised	PA66HSUV	-40 °C to +105 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Modified elevated maximum temperature</li> <li>UV resistant</li> </ul>	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Modified elevated maximum temperature</li> </ul>	HF RoHS
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
Polyamide 6.6, high impact modified, heat and UV-stabilised	PA66HIRHSUV	-40 °C to +110 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated maximum temperature</li> <li>High yield strength, UV resistant</li> </ul>	RoHS
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated maximum temperature</li> </ul>	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	<ul style="list-style-type: none"> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	HF RoHS
Polyamide 6.6, UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> <li>High yield strength</li> <li>UV resistant</li> </ul>	HF RoHS

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
<b>Polyamide 6.6,</b> with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6,</b> with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame-retardant	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyamide 6.6 V0</b>	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Low smoke emission</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyester</b>	SP	-50 °C to +150 °C	Black (BK)		<ul style="list-style-type: none"> <li>UV resistant</li> <li>Good chemical resistance to most acids, bases and oils</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyetheretherketone</b>	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V2	<ul style="list-style-type: none"> <li>Resistance to radioactivity</li> <li>Not moisture sensitive</li> <li>Good chemical resistance to acids, bases, oxidising agents</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polyethylene</b>	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	<ul style="list-style-type: none"> <li>Low moisture absorption</li> <li>Good chemical resistance to most acids, bases, alcohol, oils</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyolefin</b>	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0	<ul style="list-style-type: none"> <li>Low smoke emissions</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Polypropylene</b>	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> <li>Floats in water</li> <li>Moderate yield strength</li> <li>Good chemical resistance to acids, bases and solvents</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polypropylene, Ethylene Propylene Diene Terpolymer</b> rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>Good resistance to high temperature</li> <li>Good chemical and abrasion resistance</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polypropylene</b> with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	<ul style="list-style-type: none"> <li>Metal and X-Ray detectable</li> <li>Heat resistant</li> <li>Moderate yield strength</li> <li>Good chemical resistance</li> </ul>	<b>RoHS</b>
<b>Polypropylene</b> with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame-retardant	<ul style="list-style-type: none"> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	<b>HF</b> <b>RoHS</b>
<b>Polyvinylchloride</b>	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	<ul style="list-style-type: none"> <li>Low moisture absorption</li> <li>Good chemical resistance to acids, bases, salts, alcohol, oils</li> </ul>	<b>RoHS</b>
<b>Stainless Steel, Stainless Steel</b>	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	<ul style="list-style-type: none"> <li>Corrosion resistant</li> <li>Antimagnetic</li> <li>Weather resistant</li> <li>Chemical resistance</li> <li>SS316 also resistant against seawater, salt spray and anorganic acids</li> </ul>	<b>HF</b> <b>LFH</b> <b>RoHS</b>
<b>Thermoplastic Polyurethane</b>	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> <li>High elasticity</li> <li>Good chemical resistance to acids, bases and oxidising agents</li> </ul>	<b>HF</b> <b>RoHS</b>

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.**