



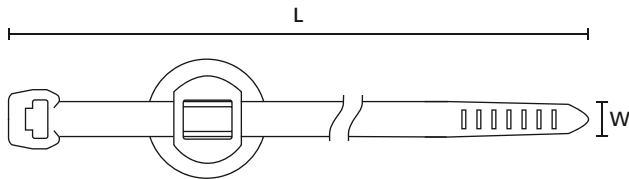
Cable Ties and Fixings

Cable Ties With Fixing Elements

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



Reference for dimensions only



Pipe Clip CBTO, twistable 90°.

| PART DESCRIPTION | Drawing | Attach to Ø | Width (W) | Length (L) | Bundle Ø max. |
|----------------------------------|---------|-------------|-----------|------------|---------------|
| T50ROCSG1A-PA66/PA66HIRHS-BK | | 4.0 - 10.0 | 4.6 | 202.0 | 45.0 |
| T50IOC1A-PA66HIRHS-BK | | 4.0 - 10.0 | 4.6 | 305.0 | 80.0 |
| T30ROC1A-PA66HS/PA66HIRHS-BK | | 4.0 - 10.0 | 3.6 | 148.0 | 31.0 |
| T50ROC1A-PA66HS/PA66HIRHS-BK | | 4.0 - 10.0 | 4.6 | 202.0 | 45.0 |
| T50LOC1A-PA66HIRHSUV-BK | | 4.0 - 10.0 | 4.7 | 390.0 | 45.0 |
| T50ROCSG1B-PA66/PA66HIRHS-BK | | 4.0 - 10.0 | 4.6 | 202.0 | 45.0 |
| T30ROC1B-PA66HS/PA66HIRHS-BK | | 4.0 - 10.0 | 3.6 | 148.0 | 30.0 |
| T50ROC1B-PA66HS/PA66HIRHS-BK | | 4.0 - 10.0 | 4.6 | 202.0 | 45.0 |
| T30ROC2B-PA46/PA66HIRHS-NA/BK | | 6.5 - 7.5 | 3.6 | 148.0 | 31.0 |
| T50ROC2B-PA66HS/PA66HIRHS-BK | | 6.5 - 7.5 | 4.6 | 202.0 | 50.0 |
| T30ROC2A-PA46-GY | | 6.5 - 7.5 | 3.6 | 148.0 | 31.0 |
| T30ROC2A-PA46/PA66HIRHS-NA/BK | | 6.5 - 7.5 | 3.6 | 148.0 | 31.0 |
| T30ROC2A-PA66HS/PA66HIRHS-BK | | 6.5 - 7.5 | 3.6 | 148.0 | 31.0 |
| T30ROC5J-PA66HSUV-BK | | 11.0 | 3.5 | 152.0 | 30.0 |
| T50RORC15x15-PA66HS/PA66HIRHS-BK | | 15.0 x 15.0 | 4.6 | 200.0 | 50.0 |

All dimensions in mm. Subject to technical changes.

2-Piece Fixing Ties with Pipe Clip, twistable 90°

| PART DESCRIPTION | Drawing | Attach to Ø | Width (W) | Length (L) | Bundle Ø max. |
|--|---------|-------------|-----------|------------|---------------|
| T50ROC10-14CBTO-SD-SET-PA66HS/PA66HIRHS-BK | | 10.0 - 14.0 | 4.6 | 202.0 | 45.0 |
| T50ROC15-18CBTO-SD-SET-PA66HS/PA66HIRHS-BK | | 15.0 - 18.0 | 4.6 | 202.0 | 45.0 |
| T50ROC19-24.5CBTO-SD-SET-PA66HS/PA66HIRHS-BK | | 19.0 - 24.5 | 4.6 | 202.0 | 45.0 |

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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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