Cable Ties and Fixings
Fixing Elements

1.8

Cable Fixing Cradle

TM1SF for cable ties width up to 5.0 mm

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

Features and benefits
- Ideal mount for space-saving applications with restricted access
- Arrowhead for very secure fixing

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Height (H)</th>
<th>Hole Ø (FH)</th>
<th>Panel Thickness</th>
<th>Strap Width max. (G)</th>
<th>Material</th>
<th>Colour</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM1SF</td>
<td>10.2</td>
<td>15.8</td>
<td>4.6</td>
<td>4.6</td>
<td>6.35</td>
<td>3.3 - 3.4</td>
<td>PA66</td>
<td>White (WH)</td>
<td>151-40119</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Arrowhead Cradle

SFC

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

Features and benefits
- Arrowhead fixing for use in pre-drilled or punched holes
- SFC and SFC2 for ties up to 5.3 mm wide
- SFC3 for ties up to 8.6 mm wide

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Hole Ø (FH)</th>
<th>Panel Thickness</th>
<th>Strap Width max. (G)</th>
<th>Material</th>
<th>Colour</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFC2</td>
<td>6.0</td>
<td>14.5</td>
<td>6.0</td>
<td>0.8 - 1.0</td>
<td>5.3</td>
<td>PA66</td>
<td>Natural (NA)</td>
<td>151-02000</td>
</tr>
<tr>
<td>SFC</td>
<td>11.0</td>
<td>18.0</td>
<td>6.0</td>
<td>3.0 - 3.2</td>
<td>5.3</td>
<td>PA66</td>
<td>Natural (NA)</td>
<td>151-01600</td>
</tr>
<tr>
<td>SFC3</td>
<td>22.0</td>
<td>15.5</td>
<td>6.3</td>
<td>0.8 - 1.8</td>
<td>8.6</td>
<td>PA66</td>
<td>Black (BK)</td>
<td>151-01906</td>
</tr>
<tr>
<td>SFC3</td>
<td>22.0</td>
<td>15.5</td>
<td>6.3</td>
<td>0.8 - 1.8</td>
<td>8.6</td>
<td>PA66</td>
<td>Natural (NA)</td>
<td>151-01909</td>
</tr>
</tbody>
</table>

All dimensions in mm. Subject to technical changes.

Further information at www.HellermannTyton.com/fixings
# Material Specification Overview

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>Material Shortcut</th>
<th>Operating Temperature</th>
<th>Colour**</th>
<th>Flammability</th>
<th>Material Properties*</th>
<th>Material Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium-alloy</td>
<td>AL</td>
<td>-40 °C to +180 °C</td>
<td>Natural (NA)</td>
<td></td>
<td>• Corrosion resistant • Antimagnetic</td>
<td>RoHS</td>
</tr>
<tr>
<td>Chloroprene</td>
<td>CR</td>
<td>-20 °C to +80 °C</td>
<td>Black (BK)</td>
<td></td>
<td>• Weather-resistant • High yield strength</td>
<td>RoHS</td>
</tr>
<tr>
<td>Ethylene Tetrafluoroethylene (Tefzel®)</td>
<td>E/TFE</td>
<td>-80 °C to +170 °C</td>
<td>Blue (BU)</td>
<td>UL 94 V0</td>
<td>• Resistance to radioactivity • UV- resistant, not moisture sensitive • Good chemical resistance to: acids, bases, oxidizing agents</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polycarbonate</td>
<td>POM</td>
<td>-40 °C to +90 °C, (+110 °C, 500 h)</td>
<td>Natural (NA)</td>
<td>UL 94 HB</td>
<td>• Limited britleness sensitivity • Flexible at low temperature • Not moisture sensitive • Robust on impacts</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 11</td>
<td>PA11</td>
<td>-40 °C to +85 °C, (+105 °C, 500 h)</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Bio-plastic, derived from vegetable oil • Strong impact resistance at low temperature • Very low moisture absorption • Weather-resistant • Good chemical resistance</td>
<td>HF RoHS</td>
</tr>
<tr>
<td>Polyamide 12</td>
<td>PA12</td>
<td>-40 °C to +85 °C, (+105 °C, 500 h)</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Good chemical resistance to: acids, bases, oxidizing agents • UV- resistant</td>
<td>HF RoHS</td>
</tr>
<tr>
<td>Polyamide 4.6</td>
<td>PA46</td>
<td>-40 °C to +150 °C (5000 h), +195 °C (500 h)</td>
<td>Natural (NA), Grey (GY)</td>
<td>UL 94 V2</td>
<td>• Resistance to high temperatures • Very moisture sensitive • Low smoke sensitivity</td>
<td>HF LFH RoHS</td>
</tr>
<tr>
<td>Polyamide 6</td>
<td>PA6</td>
<td>-40 °C to +80 °C</td>
<td>Black (BK)</td>
<td>UL 94 V2</td>
<td>• High yield strength</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 6, high impact modified</td>
<td>PA6HIR</td>
<td>-40 °C to +80 °C</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Limited brittleness sensitivity • Higher flexibility at low temperature</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6</td>
<td>PA66</td>
<td>-40 °C to +85 °C, (+105 °C, 500 h)</td>
<td>Black (BK), Natural (NA)</td>
<td>UL 94 V2</td>
<td>• High yield strength</td>
<td>HF RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, glass-fibre reinforced</td>
<td>PA66GF13, PA66GF15</td>
<td>-40 °C to +105 °C</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Good resistance to: lubricants, vehicle fuel, salt water and a lot of solvent</td>
<td>HF RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, heat and UV stabilised</td>
<td>PA66HSW</td>
<td>-40 °C to +105 °C</td>
<td>Black (BK)</td>
<td>UL 94 V2</td>
<td>• High yield strength • Modified elevated max. temperature • UV-resistant</td>
<td>HF RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, heat stabilised</td>
<td>PA66HS</td>
<td>-40 °C to +105 °C</td>
<td>Black (BK), Natural (NA)</td>
<td>UL 94 V2</td>
<td>• High yield strength • Modified elevated max. temperature</td>
<td>HF RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, high impact modified</td>
<td>PA66HIR</td>
<td>-40 °C to +80 °C, (+105 °C, 500 h)</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Limited brittleness sensitivity • Higher flexibility at low temperature</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, high impact modified, heat and UV stabilised</td>
<td>PA66HIRHSW</td>
<td>-40 °C to +110 °C</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Limited brittleness sensitivity • Higher flexibility at low temperature • Modified elevated max. temperature • High yield strength, UV-resistant</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, high impact modified, heat stabilised</td>
<td>PA66HIRHS</td>
<td>-40 °C to +105 °C</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Limited brittleness sensitivity • Higher flexibility at low temperature • Modified elevated max. temperature</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, high impact modified, ScanBlack</td>
<td>PA66HIR(S)</td>
<td>-40 °C to +80 °C, (+105 °C, 500 h)</td>
<td>Black (BK)</td>
<td>UL 94 HB</td>
<td>• Limited brittleness sensitivity • Higher flexibility at low temperature</td>
<td>RoHS</td>
</tr>
<tr>
<td>Polyamide 6.6, UV-resistant</td>
<td>PA66W</td>
<td>-40 °C to +85 °C, (+105 °C, 500 h)</td>
<td>Black (BK)</td>
<td>UL 94 V2</td>
<td>• High yield strength • UV-resistant</td>
<td>HF RoHS</td>
</tr>
</tbody>
</table>
### Cable Ties and Fixings

#### Material Information

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<tr>
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</tr>
</thead>
</table>
| 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) | halogen free | • UV-resistant  
• Good chemical resistance to: most acids, alkalis and oils | **HF**  
**LFH**  
**RoHS** |
| Polyetheretherketone | PEEK | -55 °C to +240 °C | Beige (BGE) | UL 94 V0 | • Resistance to radioactivity  
• Not moisture sensitive  
• Good chemical resistance to: acids, bases, oxidizing agents | **HF**  
**LFH**  
**RoHS** |
| Polyethylene | PE | -40 °C to +50 °C | Black (BK), Grey (GY) | UL 94 HB | • Low moisture absorption  
• Good chemical oilresistance to: most acids, alcohol and 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: organic acids | **HF**  
**RoHS** |
| Polypropylene, Ethylene-Propylene-Dien-Terpolymer-rubber free of Nitrosamine | PP, EPDM | -20 °C to +95 °C | Black (BK), Natural (NA) | UL 94 HB | • Good resistance to high temperatures  
• 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, ethanol and oil | **RoHS** |
| Stainless Steel | SS304, SS316 | -80 °C to +538 °C | Natural (NA) | non-burning | • Corrosion resistant  
• Antimagnetic  
• Weather resistant  
• Outstanding chemical resistance | **HF**  
**LFH**  
**RoHS** |
| Thermoplastic Polyurethane | TPU | -40 °C to +85 °C | Black (BK) | UL 94 HB | • High elastic  
• Good chemical resistance to: acids, bases and oxidizing 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 is also using equivalent E/TFE raw material from other suppliers. **More colours on request. *These details are only rough guide values. They should not be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

HF = Halogenfree  
LFH = Limited Fire Hazard  
RoHS = Restriction of Hazardous Substances

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Minor Loop Tensile Strength for Cable Ties (Newton)