Cable Ties and Fixings
Cable Ties, Stainless Steel

Cable ties with ball-lock
MBT-Series, stainless steel 304

Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. MBT ties are also suitable for machine building, construction and in the outside area of radio technology. Additionally MBT ties are ideal for securing lighting in theatres and exhibition halls.

Features and benefits
• Cable ties MBT, made from stainless steel 304
• Non-releasable locking feature
• Corrosion resistant
• Weather resistant
• Outstanding chemical resistance
• High temperature resistant
• Non-burning

Stainless steel cable ties, uncoated, MBT_SS, MBT_HS.

Stainless Steel Cable Ties, uncoated, MBT_XHS.

Can support quality assurance in the production of food stuffs, for example HACCP.

The MBT-Series (up to 7.9 mm) can be used in combination with the stainless steel P-Mount. The mount is simple to install with a screw or bolt and ensures a durable fixing solution. Please see page 156.

Cable Ties with ball-lock

MBT-Series, stainless steel 304

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Recommended Tools

<table>
<thead>
<tr>
<th>Type</th>
<th>Width (W)</th>
<th>Length (L)</th>
<th>Bundle Ø min.</th>
<th>Bundle Ø max.</th>
<th>Material</th>
<th>Pack Cont.</th>
<th>Tools</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBT8SS</td>
<td>4.6</td>
<td>201.0</td>
<td>17.0</td>
<td>50.0</td>
<td>900</td>
<td>SS304</td>
<td>100 pcs.</td>
<td>15-18</td>
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<td>MBT5SS</td>
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<td>12.0</td>
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<td>900</td>
<td>SS304</td>
<td>100 pcs.</td>
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<td>MBT14HS</td>
<td>7.9</td>
<td>362.0</td>
<td>17.0</td>
<td>102.0</td>
<td>2,000</td>
<td>SS304</td>
<td>50 pcs.</td>
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</tr>
<tr>
<td>MBT20SS</td>
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<td>521.0</td>
<td>17.0</td>
<td>152.0</td>
<td>900</td>
<td>SS304</td>
<td>100 pcs.</td>
<td>15-18</td>
</tr>
<tr>
<td>MBT27SS</td>
<td>4.6</td>
<td>685.0</td>
<td>17.0</td>
<td>203.0</td>
<td>900</td>
<td>SS304</td>
<td>100 pcs.</td>
<td>15-18</td>
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<td>MBT33SS</td>
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<td>838.0</td>
<td>17.0</td>
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<td>MBT14XHS</td>
<td>12.3</td>
<td>362.0</td>
<td>17.0</td>
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Recommended Tools

For more information on toolings please refer to the Application Tooling chapter.
### Material Specification Overview

<table>
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<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>
</table>
| 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 | • Good chemical resistance to acids, bases, oxidizing agents  
  • UV resistant | HF |
| Polyamide 12 | PA12 | -40 °C to +85 °C, (+105 °C, 500 h) | Black (BK) | UL 94 HB | • Resistance to high temperatures  
  • Very moisture sensitive  
  • Low smoke sensitivity | HF |
| 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 radioactivity  
  • UV resistant  
  • Good chemical resistance | 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, PA66GF15 | -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 | PA66HSW | -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 | PA66S | -40 °C to +105 °C | Black (BK), Natural (NA) | UL 94 V2 | • Limited brittleness sensitivity  
  • Higher flexibility at low temperature | 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  
  • Modified elevated maximum temperature  
  • UV resistant | RoHS |
| Polyamide 6.6 high impact modified, heat and UV stabilised | PA66HIRHSW | -40 °C to +110 °C | Black (BK) | UL 94 H8 | • Limited brittleness sensitivity  
  • Higher flexibility at low temperature  
  • Modified elevated maximum temperature  
  • UV resistant  
  • High yield strength, UV resistant | RoHS |
| Polyamide 6.6 high impact modified, heat stabilised | PA66HIRS | -40 °C to +105 °C | Black (BK) | UL 94 H8 | • 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 | 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 |
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| 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 V0 | • 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 | HF  
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.

**Further colours available on request.

*These details are only guide values. They should not be regarded as a exhaustive material specification and are no substitute for suitability tests. Please see our datasheets for further details.

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