



Cable ties for food industry, detectable

MCT-Series, PA66MP

The Metal Content Tie is a cable tie specifically designed for use in the food and pharmaceutical processing industries. A unique manufacturing process, involving the inclusion of a metallic pigment, enables even small 'cut-off' sections of the tie to be detected by standard metal-detecting equipment. Ideally suited for the installation of cabling in and around the manufacturing process.

Features and benefits

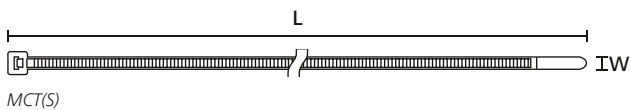
- Total metal dispersion throughout the tie
- Can support quality assurance in the production of food stuffs, for example HACCP
- Blue colour for easy visual detection
- Greatly reduces risk of contamination
- Magnetic detectable (detection level depending on specific application and equipment)



Our detectable MCT(S) cable ties are used in the food and pharmaceutical industry.



www.HellermannTyton.com/MCT-cat22



MCT(S)



Material specification please see page 26.



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

| TYPE | Width (W) | Length (L) | Bundle Ø max. | N | Material | Colour | Pack Cont. | Tools | Article-No. |
|---------|-----------|------------|---------------|-----|----------|-------------|------------|-----------------|-------------|
| MCT18R | 2.5 | 100.0 | 22.0 | 80 | PA66MP | Blue (BU) | 100 pcs. | 2;5-6 | 111-01225 |
| MCT30R | 3.5 | 150.0 | 35.0 | 135 | PA66MP | Blue (BU) | 100 pcs. | 2;5-6 | 111-00829 |
| MCT50R | 4.6 | 202.0 | 50.0 | 225 | PA66MP | Blue (BU) | 100 pcs. | 2-3;5-6;8;10 | 111-00830 |
| MCT50L | 4.7 | 380.0 | 110.0 | 225 | PA66MP | Blue (BU) | 100 pcs. | 2-3;5-6;8;10;12 | 111-00831 |
| | 4.7 | 380.0 | 110.0 | 225 | PA66MP | Yellow (YE) | 100 pcs. | 2-3;5-6;8;10;12 | 111-01168 |
| MCT120R | 7.6 | 387.0 | 100.0 | 535 | PA66MP | Blue (BU) | 100 pcs. | 3;10-12 | 111-01136 |

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 | | | | | | | | |
|-------------------|------|------|----------|------|------|------|--------|------|
| | 2 | 3 | 5 | 6 | 8 | 10 | 11 | 12 |
| | MK20 | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 | EVO9HT | MK9P |
| | 549 | 549 | 550 | 552 | 554 | 553 | 553 | 555 |

For more information on toolings please refer to the Application Tooling chapter.



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"> Corrosion resistant Antimagnetic | RoHS |
| Chloroprene Rubber | CR | -20 °C to +80 °C | Black (BK) | | <ul style="list-style-type: none"> Weather resistant High yield strength | RoHS |
| Ethylene Tetrafluoroethylene (Tefzel®) | E/TFE | -80 °C to +170 °C | Blue (BU) | UL 94 V0 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Bio-plastic, derived from vegetable oil Strong impact resistance at low temperature Very low moisture absorption Weather resistant Good chemical resistance | 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"> Good chemical resistance to acids, bases, oxidizing agents UV resistant | 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"> Resistance to high temperatures Very moisture sensitive Low smoke sensitivity | HF LFH RoHS |
| Polyamide 6 | PA6 | -40 °C to +80 °C | Black (BK) | UL 94 V2 | <ul style="list-style-type: none"> High yield strength | RoHS |
| Polyamide 6, high impact modified | PA6HIR | -40 °C to +80 °C | Black (BK) | UL 94 HB | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> High yield strength | 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"> Good resistance to lubricants, fuels, salt water and solvents | 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"> High yield strength Modified elevated maximum temperature UV resistant | 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"> High yield strength Modified elevated maximum temperature | 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"> Limited brittleness sensitivity Higher flexibility at low temperature | 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"> Limited brittleness sensitivity Higher flexibility at low temperature Modified elevated maximum temperature High yield strength, UV resistant | 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"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> High yield strength UV resistant | HF RoHS |

| MATERIAL | Material Shortcut | Operating Temperature | Colour** | Flammability | Material Properties* | Material Specifications |
|---|-------------------|---------------------------------------|-----------------------------|------------------------|---|-------------------------|
| 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 | 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 an exhaustive material specification and are no substitute for suitability tests. Please see our datasheets for further details.



**Minimum Loop Tensile Strength
for Cable Ties (newton)**

HF = Halogenfree

LFH = Limited Fire Hazard

RoHS = Restriction of Hazardous Substances