



## 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

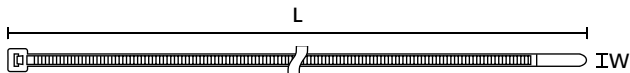
- Total metal dispersion throughout the tie
- Can support quality assurance in the production of food stuffs, for example HACCP
- Blue colour for easy visual detection
- Greatly reduces risk of contamination
- Magnetic detectable (detection level depending on specific application and equipment)



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



[www.HellermannTyton.co.uk/MCT-cat22](http://www.HellermannTyton.co.uk/MCT-cat22)




MCT-Series



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.		Material	Colour	Pack Cont.	Tools	Article-No.
MCT18R	2.5	100.0	22.0	80	PA66MP	Blue (BU)	100 pcs.	1-2;4-6;25	111-01225
MCT30R	3.5	150.0	35.0	135	PA66MP	Blue (BU)	100 pcs.	1-2;4-6;25	111-00829
MCT50R	4.6	203.2	50.0	225	PA66MP	Blue (BU)	100 pcs.	1-2;4-6;25	111-00830
MCT50L	4.7	380.0	110.0	225	PA66MP	Blue (BU)	100 pcs.	1-2;4-6;25	111-00831
	4.7	380.0	110.0	225	PA66MP	Green (GN)	100 pcs.	1-2;4-6;25	111-01169
	4.7	380.0	110.0	225	PA66MP	Red (RD)	100 pcs.	1-2;4-6;25	111-01167
	4.7	380.0	110.0	225	PA66MP	Yellow (YE)	100 pcs.	1-2;4-6;25	111-01168
MCT120R	7.6	387.0	100.0	535	PA66MP	Blue (BU)	100 pcs.	1;3;9-10;25	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									
	1	2	3	4	5	6	9	10	25
	MK10-SB	MK20	MK21	MK3PNSP2	EVO7i	MK7P	EVO9HT	MK9P	EVOcut
	550	550	550	551	553	555	554	556	563

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"> <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, (+105 °C for 500 h)	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, (+105 °C for 500 h)	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, (+105 °C for 500 h)	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, (+105 °C for 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> <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>	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
Polyamide 6.6, 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>	HF RoHS
Polyamide 6.6, 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>	HF RoHS

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
<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 V0	<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</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 oxidizing 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.

\*\*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** = Halogen Free

**LFH** = Limited Fire Hazard

**RoHS** = Restriction of Hazardous Substances