

Cable ties for food industry, detectable, corrosion resistant MCTS-Series, PA66MP+

Our MCTS cable ties have been specifically developed to be used in the food and beverage as well as in the pharmaceutical industry. A unique manufacturing process in combination with a unique material formulation is offering outstanding perfomance in line with high corrosion resistance. This makes the MCTS an ideal product even for very humid environments. In addition the MCTS ties manufactured from a polypropylene base material are offering very good chemical resistance.

## Features and benefits

MCT(S)

- 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 and X-Ray detectable (detection level depending on specific application and equipment)

• MCTS ties have very good corrosion resistance

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



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

ТҮРЕ	Width (W)	Length (L)	Bundle Ø max.	Я N	Material	Colour	Pack Cont.	Tools	Article-No.
	2.5	100.0	22.0	60	PA66MP+	Blue (BU)	100 pcs.	2;4-6	111-01341
MCTS100	2.5	100.0	22.0	60	PA66MP+	Mint Green (MGN)	100 pcs.	2;4-6	111-01377
IVICISIOU	2.5	100.0	22.0	60	PA66MP+	Mustard (MST)	100 pcs.	2;4-6	111-01380
	2.5	100.0	22.0	60	PA66MP+	Russet (RUS)	100 pcs.	2;4-6	111-01383
	3.5	153.0	36.0	110	PA66MP+	Blue (BU)	100 pcs.	2;4-6	111-01342
MCTS150	3.5	153.0	36.0	110	PA66MP+	Mint Green (MGN)	100 pcs.	2;4-6	111-01378
IVICISISU	3.5	153.0	36.0	110	PA66MP+	Mustard (MST)	100 pcs.	2;4-6	111-01381
	3.5	153.0	36.0	110	PA66MP+	Russet (RUS)	100 pcs.	2;4-6	111-01384
	4.7	203.0	50.0	150	PA66MP+	Blue (BU)	100 pcs.	2-10	111-01343
MCTS200	4.7	203.0	50.0	150	PA66MP+	Mint Green (MGN)	100 pcs.	2-10	111-01379
IVIC13200	4.7	203.0	50.0	150	PA66MP+	Mustard (MST)	100 pcs.	2-10	111-01382
	4.7	203.0	50.0	150	PA66MP+	Russet (RUS)	100 pcs.	2-10	111-01385
	4.8	301.0	80.0	150	PA66MP+	Blue (BU)	100 pcs.	2-10	111-01399
МСТ\$300	4.8	301.0	80.0	150	PA66MP+	Mint Green (MGN)	100 pcs.	2-10	111-01400
101013500	4.8	301.0	80.0	150	PA66MP+	Mustard (MST)	100 pcs.	2-10	111-01401
	4.8	301.0	80.0	150	PA66MP+	Russet (RUS)	100 pcs.	2-10	111-01402

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Rec	Recommended Tools										
	2	3	4	5	6	7	8	9	10		
	MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	EVO9		
	551	551	552	552	554	555	556	557	554		

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><li>Corrosion resistant</li><li>Antimagnetic</li></ul>	RoHS
Chloroprene	CR	-20 °C to +80 °C	Black (BK)		<ul><li>Weather-resistant</li><li>High yield strength</li></ul>	RoHS
Ethylene Tetrafluoroethylene (Tefzel <sup>®</sup> )	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0	<ul> <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> <li>Limited brittleness sensitivity</li> <li>Flexible at low temperature</li> <li>Not moisture sensitive</li> <li>Robust on impacts</li> </ul>	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul> <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 resistanc</li> </ul>	HF RoHS
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul> <li>Good chemical resistance to: acids, bases, oxidizing agents</li> <li>UV- resistant</li> </ul>	HF RoHS
Polyamide 4.6	PA46	-40 °C to +150 °C (5000 h), +195 °C (500 h)	Natural (NA), Grey (GY)	UL 94 V2	<ul> <li>Resistance to high temperatures</li> <li>Very moisture sensitive</li> <li>Low smoke sensitiv</li> </ul>	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	<ul> <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	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, vehicle fuel, salt water and a lot of solvent	HF RoHS
Polyamide 6.6, heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL 94 V2	<ul> <li>High yield strength</li> <li>Modified elevated max. temperature</li> <li>UV-resistant</li> </ul>	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2	<ul> <li>High yield strength</li> <li>Modified elevated max. 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> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL 94 HB	<ul> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated max. 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	Black (BK)	UL 94 HB	<ul> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> <li>Modified elevated max. temperature</li> </ul>	RoHS
<b>Polyamide 6.6,</b> high impact modified, ScanBlack	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul> <li>Limited brittleness sensitivity</li> <li>Higher flexibility at low temperature</li> </ul>	RoHS
<b>Polyamide 6.6,</b> UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2	<ul> <li>High yield strength</li> <li>UV-resistant</li> </ul>	HF RoHS

## Cable Ties and Fixings

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MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
<b>Polyamide 6.6,</b> with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB	<ul> <li>High yield strength</li> <li>Metal and X-Ray detectable</li> </ul>	HF RoHS
<b>Polyamide 6.6,</b> with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	<ul> <li>High yield strength</li> <li>Metal and x-ray detectable</li> </ul>	HF RoHS
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	<ul><li>High yield strength</li><li>Low smoke emission</li></ul>	HF LFH RoHS
Polyester	SP	-50 °C to +150 °C	Black (BK)	halogen free	<ul> <li>UV-resistant</li> <li>Good chemical resistance to: most acids, alkaliks and oils</li> </ul>	HF LFH RoHS
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0	<ul> <li>Resistance to radioactivity</li> <li>Not moisture sensitive</li> <li>Good chemical resistance to: acids, bases, oxidizing agents</li> </ul>	HF LFH RoHS
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	<ul> <li>Low moisture absorption</li> <li>Good chemical oilsresistance to: most acids, alcohol and oils</li> </ul>	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	<ul> <li>Floats in water</li> <li>Moderate yield strength</li> <li>Good chemical resistance to: organic acids</li> </ul>	HF RoHS
Polypropylene, Ethylene-Propylene- Dien-Terpolymere- rubber free of Nitrosamine	pp, epdm	-20 °C to +95 °C	Black (BK)	UL 94 HB	<ul> <li>Good resistance to high temperatures</li> <li>Good chemical and abrasion resistance</li> </ul>	HF RoHS
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	<ul> <li>Metal and X-Ray detectable</li> <li>Heat resistant</li> <li>Moderate yield strength</li> <li>Good chemical resistance</li> </ul>	RoHS
Polypropylene with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	<ul> <li>High yield strength</li> <li>Metal and x-ray detectable</li> </ul>	HF RoHS
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	<ul> <li>Low moisture absorption</li> <li>Good chemical resistance to: acids, ethanol and oil</li> </ul>	RoHS
Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	<ul> <li>Corrosion resistant</li> <li>Antimagnetic</li> <li>Weather resistant</li> <li>Outstanding chemical resistance</li> </ul>	HF LFH RoHS
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	<ul> <li>High elastic</li> <li>Good chemical resistance to: acids, bases and oxidizing agents</li> </ul>	HF RoHS

Tefzel<sup>®</sup> is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel<sup>®</sup>-Tie. In additon to Tefzel<sup>®</sup> from DuPont HellermannTyton is also using equivalent E/TFE raw material from other suppliers. \*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.

\*\*More colours on request.

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= Minimum Loop Tensile Strength for Cable Ties (Newton)

HF = Halogenfree

LFH = Limited Fire Hazard

**RoHS = Restriction of Hazardous Substances**