## Cable Ties for high temperature application up to +240 °C

PEEK Ties have been designed for the use in hazardous environment. Their suitablility for high temperature applications makes them ideal for use in the drilling industry, railway, offshore or automotive industry. The excellent chemical and radium ray resistance is predestinied for applications in medical engineering, chemical industry and power stations. Within the aerospace industry, PEEK ties are suitable due to their good ratio weight to tensile strength. Because of this combination of different properties, PEEK ties can replace metal solutions.

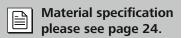
#### **Features and Benefits**

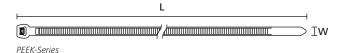
- For high temperature applications from -55 °C up to +240 °C
- Outside serrated cable tie with smooth surface to the bundle
- Close fit to the cable bundle due to the deepening head shape
- Easy insertion combined with high tensile strength
- Takes up less space due to the curved head
- Combines the performance of a metal tie with the ease of use of a polyamide cable tie
- Easy application either manually or with a processing tool



The contoured head takes up less space, gives a low insertion force and offers







# **PEEK Ties, outside serrated**

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Colour	Material	Pack Cont.	Tools	Article-No.
PT2A	3.4	145.0	4.0	35.0	230	Beige (BGE)	PEEK	100 pcs.	6-8	118-00032
РТЗВ	4.7	250.0	4.0	65.0	300	Beige (BGE)	PEEK	100 pcs.	6-8	118-00116

All dimensions in mm. Subject to technical changes.

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

### PEEK Ties, inside serrated

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N N	Material	Colour	Pack Cont.	Tools	Article-No.
PT220	4.7	220.0	8.0	56.0	380	PEEK	Beige (BGE)	100 pcs.	6-8	111-01235

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								
6	7	8						
EVO7	MK7HT	MK7P						

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



One Step to the Web!

Please find more PEEK products for your system solutions: Foot Part P1SFT65, see page 105. Screw Mount CTAM, see page 139.







For product specific approvals and specifications please refer to the Appendix.



# **Material Specification Overview**

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Aluminium-alloy	AL	-40 °C to +180 °C	Natural (NA)		Corrosion resistant     Antimagnetic	RoHS
Chloroprene	CR	-20 °C to +80 °C	Black (BK)		Weather-resistant     High yield strength	RoHS
Ethylene Tetrafluoroethylene	E/TFE	-80 °C to +170 °C	Blue (BU)	UL94 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)	UL94 HB	Limited brittleness sensitivity     Flexible at low temperature     Not moisture sensitive     Robust on impacts	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	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)	UL94 HB	Good chemical resistance to: acids, bases, oxidizing agents     UV-resistant	HF RoHS
Polyamide 4.6	PA46	-40 °C to +150 °C (5000 h), +195 °C (500 h)	Natural (NA), Grey (GY)	UL94 V2	Resistance to high temperatures     Very moisture sensitive     Low smoke sensitive	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL94 V2	High yield strength	RoHS
<b>Polyamide 6,</b> high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL94 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)	UL94 V2	High yield strength	HF RoHS
<b>Polyamide 6.6,</b> glass-fibre reinforced	PA66GF13, PA66GF15	-40 °C to +105 °C	Black (BK)	UL94 HB	Good resistance to: lubricants, vehicle fuel, salt water and many solvents	HF RoHS
<b>Polyamide 6.6,</b> heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL94 V2	High yield strength     Modified elevated max. temperature     UV-resistant	HF RoHS
<b>Polyamide 6.6,</b> heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL94 V2	High yield strength     Modified elevated     max. temperature	HF RoHS
<b>Polyamide 6.6,</b> high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	Limited brittleness sensitivity     Higher flexibility at low temperature	RoHS
<b>Polyamide 6.6,</b> high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL94 HB	Limited brittleness sensitivity     Higher flexibility at low temperature     Modified elevated max. temperature     High yield strength, UV-resistant	HF RoHS
<b>Polyamide 6.6,</b> high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL94 HB	Limited brittleness sensitivity     Higher flexibility at low temperature     Modified elevated max. temperature	RoHS
<b>Polyamide 6.6,</b> high impact modified, scan black	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL94 HB	Limited brittleness sensitivity     Higher flexibility at low temperature	HF RoHS
<b>Polyamide 6.6,</b> UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 V2	High yield strength     UV-resistant	HF RoHS

 $Tefzel^{\scriptsize 0} is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel^{\scriptsize 0}-trademark of DuPont. General linguistic usage for cable ties made from the properties of the properties$ Tie. In addition to Tefzel® from DuPont HellermannTyton is also using equivalent E/TFE raw material from other suppliers.

HF = Halogenfree LFH = Limited Fire Hazard RoHS = Restriction of Hazardous Substances \*\*More colours on request.





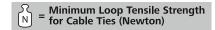
<sup>\*</sup>These details are only rough guide values. They should be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

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)	UL94 HB	High yield strength     Metal and X-Ray detectable	HF RoHS
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL94 V0	High yield strength     Low smoke emission	HF LFH RoHS
<b>Polyamide 6.6 V0,</b> High Oxygen Index	PA66V0-HOI	-40 °C to +85 °C, (+105 °C, 500 h)	White (WH)	UL94 V0	High yield strength     Low smoke emissions	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)	UL94 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)	UL94 HB	Low moisture absorption     Good chemical resistance to: most acids, alcohol and oils	HF RoHS
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL94 V0	Low smoke emissions	HF LFH RoHS
Polypropylene	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL94 HB	Floats in water     Moderate yield strength     Good chemical resistance to:     organic acids	HF RoHS
Polypropylene, Ethylene- Propylene-Dien- Terpolymere-rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL94 HB	Good resistance to high temperatures     Good chemical and abrasion resistance	HF RoHS
<b>Polypropylene</b> with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL94 HB	<ul> <li>Floats in certain liquids</li> <li>Metal and X-Ray detectable</li> <li>Heat resistant</li> <li>Moderate yield strength</li> <li>Good chemical resistance</li> </ul>	RoHS
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL94 V0	Low moisture absorption     Good chemical resistance to:     acids, ethanol and oil	RoHS
Stainless Steel, 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)	UL94 HB	High elasticity     Good chemical resistance to:     acids, bases and oxidizing agents	HF RoHS

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

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