Cable Ties and Fixings

Cable Tie locked by glass fibre pin

In addition to offering a secure method of bundling cables, the design of the KR-ties makes them ideal for use as a method of securing bellows on steering racks, water hoses and vacuum lines.

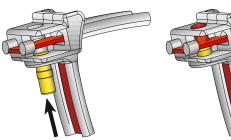
Features and Benefits

- · Patented cable tie system
- Smooth strap which is locked into place with a glass-fibre reinforced pin
- For assembly a special KR-tool is needed
- · Very secure and vibration resistant fixing
- KR-ties up to 426 mm are made as one piece fastening
- Available in various materials, including PA12 which is less hygroscopic

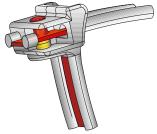


The KR-Series has been repeatedly proven in high vibration applications.









The cable tie (red) is locked into place with the pin.



KR-Series is available in different sizes.

KR-Series, 1-Piece



Cable ties KR-Series

	1	1		_	1				
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
	6.1	360.0	93.0	490	PA66	Natural (NA)	50 pcs.	13	121-63519
KR6/35	6.1	360.0	93.0	490	PA66HS	Natural (NA)	50 pcs.	13	121-63555
	6.1	360.0	93.0	490	PA66W	Black (BK)	50 pcs.	13	121-63560
	8.0	210.0	47.0	785	PA66HS	Natural (NA)	50 pcs.	13-14	121-82155
KR8/21	8.0	210.0	47.0	785	PA66	Natural (NA)	50 pcs.	13-14	121-82119
	8.0	210.0	47.0	785	PA66W	Black (BK)	50 pcs.	13-14	121-82160



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

Recommended Tools						
13	14					
KR6/8	KR8PNSE					

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



Date of issue: October 2015





Cable Tie locked by glass fibre pin

KR-Series, 1-Piece





Material specification please see page 24.

Cable ties KR-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	N N	Material	Colour	Pack Cont.	Tools	Article-No.
	8.0	337.0	86.0	390	PA12	Black (BK)	50 pcs.	13-14	121-83380
	8.0	337.0	86.0	785	PA66	Natural (NA)	50 pcs.	13-14	121-83319
KR8/33	8.0	337.0	86.0	785	PA46	Grey (GY)	50 pcs.	13-14	121-83378
	8.0	337.0	86.0	785	PA66HS	Natural (NA)	50 pcs.	13-14	121-83355
	8.0	337.0	86.0	785	PA66W	Black (BK)	50 pcs.	13-14	121-83360
KR8/43	8.0	426.0	105.0	785	PA66HS	Black (BK)	50 pcs.	13-14	121-74360
KNO/43	8.0	426.0	105.0	785	PA66HS	Natural (NA)	50 pcs.	13-14	121-74359



All dimensions in mm. Subject to technical changes.

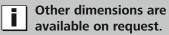
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



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

KR-Series, ultrasonic welded





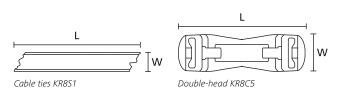
The unlocked head of a KR-tie.

TYPE	Width (W)	Length (L)	Bundle Ø max.	X N	Material	Colour	Pack Cont.	Tools	Article-No.
KR8/50	8.0	500.0	152.0	785	PA66	Natural (NA)	50 pcs.	13-14	121-05019
KR8/60	8.0	600.0	184.0	785	PA66W	Black (BK)	50 pcs.	13-14	121-06060

All dimensions in mm. Subject to technical changes.

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

KR-Series, endless



TYPE	Width (W)	Length (L)	Z Z	Material	Colour	Pack Cont.	Tools	Article-No.
VD9/C1	8.0	50.0 m	785	PA66HS	Natural (NA)	50.0 m	13	121-98151
KR8/S1	8.0	50.0 m	785	PA66W	Black (BK)	50.0 m	13	121-98160
VD9/CE	11.7	38.0	-	PA66HS	Natural (NA)	200 pcs.	13	121-58551
KR8/C5	11.7	38.0	-	PA66W	Black (BK)	200 pcs.	13	121-58560

All dimensions in mm. Subject to technical changes.

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

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
Polyamide 6, 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
Polyamide 6.6, 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
Polyamide 6.6, 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
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL94 V2	High yield strength Modified elevated max. temperature	HF RoHS
Polyamide 6.6, 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
Polyamide 6.6, 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
Polyamide 6.6, 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
Polyamide 6.6, 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
Polyamide 6.6, 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.





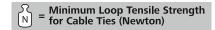
^{*}These details are only rough guide values. They should be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Polyamide 6.6, 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
Polyamide 6.6 V0, 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
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL94 HB	 Floats in certain liquids Metal and X-Ray detectable Heat resistant Moderate yield strength Good chemical resistance 	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

Tefzel® is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®- $\label{thm:continuous} \mbox{Tie. In addition to Tefzel} \mbox{\ensuremath{\text{gray}} from DuPont HellermannTyton is also using equivalent E/TFE raw material from other suppliers. }$

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

^{**}More colours on request.





^{*}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.