Cable Ties with Ball-Lock

- **MBT-Series**

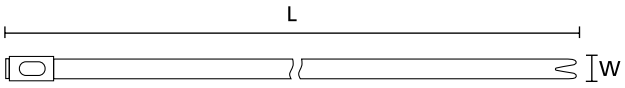
Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. MBT ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally, MBT ties are ideal for securing lighting in theatres and exhibition halls.

MBT_SS, MBT_HS.

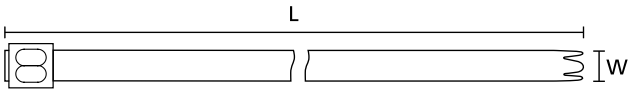
MBT_XHS.

Features and Benefits

- MBT cable ties made from stainless steel 304
- Patented non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- Antimagnetic
- High temperature resistance
- Non-burning



MBT_SS, MBT_HS



MBT_XHS

Material specification please see page 22.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Pack Cont.	Article-No.
MBT5SS	4.6	127.0	25.0	900	SS304	100	111-93058
MBT8SS	4.6	201.0	50.0	900	SS304	100	111-93088
MBT14SS	4.6	362.0	102.0	900	SS304	100	111-93148
MBT20SS	4.6	521.0	152.0	900	SS304	100	111-93208
MBT27SS	4.6	685.0	203.0	900	SS304	100	111-93278
MBT33SS	4.6	838.0	254.0	900	SS304	100	111-93338
MBT8HS	7.9	201.0	50.0	2,000	SS304	50	111-94088
MBT14HS	7.9	362.0	102.0	2,000	SS304	50	111-94148
MBT20HS	7.9	521.0	152.0	2,000	SS304	50	111-94208
MBT27HS	7.9	685.0	203.0	2,000	SS304	50	111-94278
MBT33HS	7.9	838.0	254.0	2,000	SS304	50	111-94338
MBT14XHS	12.3	362.0	102.0	2,700	SS304	50	111-95148
MBT20XHS	12.3	521.0	152.0	2,700	SS304	50	111-95208
MBT27XHS	12.3	681.0	203.0	2,700	SS304	50	111-95278
MBT33XHS	12.3	838.0	254.0	2,700	SS304	50	111-95338

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

Date of issue: January 2014

MBT-Kit

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit and ship building to automotive and high temperature applications.

Features and Benefits

- Handy kit for on-site installations in harsh environments
- MBT-kit consists of:
- A carry case
- An assortment of five sizes of MBT ties (SS304)
- THT application tool

MBT-Kit, an assortment of different sizes of MBT cable ties.

Application tools please see page 302.

Material specification please see page 22.

TYPE	Content	Length (L)	Width (W)	Bundle Ø max.	N	Article-No.	Page
MBT-KIT-304-BASIC						**111-01422**	
Content							
THT Tool	1					110-09970	60
MBT8SS	20	201.0	4.6	50.0	900.0	111-93088	
MBT8HS	20	201.0	7.9	50.0	2,000.0	111-94088	
MBT5SS	20	127.0	4.6	25.0	900.0	111-93058	
MBT14SS	30	362.0	4.6	102.0	900.0	111-93148	
MBT14HS	30	362.0	7.9	102.0	2,000.0	111-94148	

All dimensions in mm. Subject to technical changes.

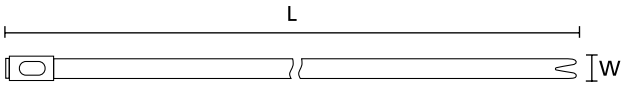
Cable Ties with Ball-Lock

- **MBT-Series**

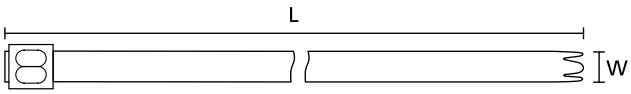
Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. MBT ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally, MBT ties are ideal for securing lighting in theatres and exhibition halls.

Features and Benefits

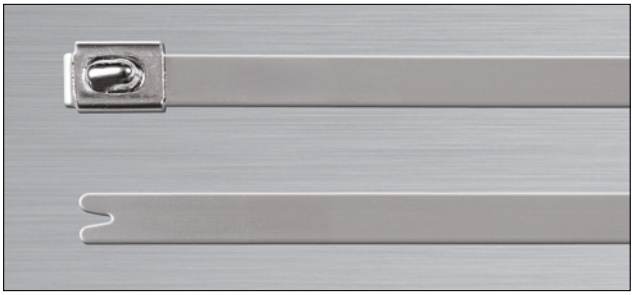
- MBT cable ties made from stainless steel 316
- Patented non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- Antimagnetic
- High temperature resistance
- Non-burning



MBT_S, MBT_H

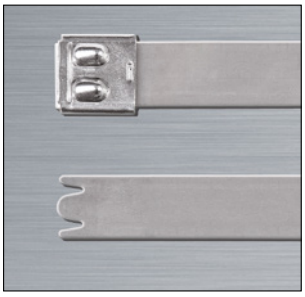


MBT_XH

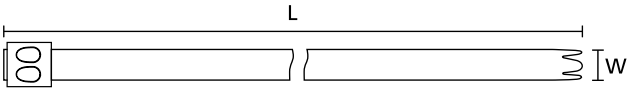


MBT_S, MBT_H.

MBT_XH.



MBTUH.



MBT_UH

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Pack Cont.	Article-No.
MBT5S	4.6	127.0	25.0	900	SS316	100	111-93059
MBT8S	4.6	201.0	50.0	900	SS316	100	111-93089
MBT14S	4.6	362.0	102.0	900	SS316	100	111-93149
MBT20S	4.6	521.0	152.0	900	SS316	100	111-93209
MBT27S	4.6	685.0	203.0	900	SS316	100	111-93279
MBT33S	4.6	838.0	254.0	900	SS316	100	111-93339
MBT8H	7.9	201.0	50.0	2,000	SS316	50	111-94089
MBT14H	7.9	362.0	102.0	2,000	SS316	50	111-94149
MBT20H	7.9	521.0	152.0	2,000	SS316	50	111-94209
MBT27H	7.9	685.0	203.0	2,000	SS316	50	111-94279
MBT33H	7.9	838.0	254.0	2,000	SS316	50	111-94339
MBT14XH	12.3	362.0	102.0	2,700	SS316	50	111-95149
MBT20XH	12.3	521.0	152.0	2,700	SS316	50	111-95209
MBT27XH	12.3	681.0	203.0	2,700	SS316	50	111-95279
MBT33XH	12.3	838.0	254.0	2,700	SS316	50	111-95339
MBT14UH	16.0	362.0	102.0	4,100	SS316	50	111-01301
MBT20UH	16.0	521.0	152.0	4,100	SS316	50	111-01302
MBT27UH	16.0	681.0	203.0	4,100	SS316	50	111-01303
MBT33UH	16.0	838.0	254.0	4,100	SS316	50	111-01304
MBT43UH	16.0	1,092.0	330.0	4,100	SS316	25	111-01305
MBT49UH	16.0	1,245.0	380.0	4,100	SS316	25	111-01306

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

Date of issue: January 2014

Cable Ties with Ball-Lock and Coating

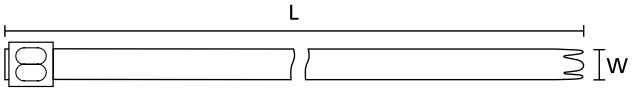
- **MBT-FC-Series**

Features and Benefits

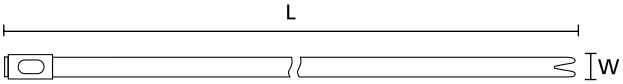
- Fully coated MBT, made from type 316 stainless steel with polyester coating
- Patented non-releasable locking feature
- Coated cable tie with smooth edges
- Comfortable handling and installation
- Eliminates contact corrosion between dissimilar materials during application

MBT_SFC, MBT_HFC.

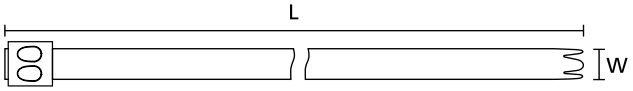
MBT_XHFC.



MBT_XHFC



MBT_SFC, MBT_HFC



MBT_UHFC

Application tools please see page 302.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Pack Cont.	Article-No.
MBT5SFC	4.6	127.0	25.0	540	SS316, SP	100	111-00288
MBT8SFC	4.6	201.0	50.0	540	SS316, SP	100	111-00289
MBT14SFC	4.6	362.0	102.0	540	SS316, SP	100	111-00290
MBT20SFC	4.6	521.0	152.0	540	SS316, SP	100	111-00291
MBT27SFC	4.6	681.0	203.0	540	SS316, SP	100	111-00292
MBT33SFC	4.6	838.0	254.0	540	SS316, SP	100	111-00293
MBT8HFC	7.9	201.0	50.0	1,020	SS316, SP	50	111-00294
MBT14HFC	7.9	362.0	102.0	1,020	SS316, SP	50	111-00295
MBT20HFC	7.9	521.0	152.0	1,020	SS316, SP	50	111-00296
MBT27HFC	7.9	681.0	203.0	1,020	SS316, SP	50	111-00297
MBT33HFC	7.9	838.0	254.0	1,020	SS316, SP	50	111-00298
MBT14XHFC	12.3	362.0	102.0	1,620	SS316, SP	50	111-00299
MBT17XHFC	12.3	434.0	125.0	1,620	SS316, SP	50	111-01500
MBT20XHFC	12.3	521.0	152.0	1,620	SS316, SP	50	111-00300
MBT23XHFC	12.3	575.0	168.0	1,620	SS316, SP	50	111-01501
MBT27XHFC	12.3	681.0	203.0	1,620	SS316, SP	50	111-00301
MBT30XHFC	12.3	754.0	225.0	1,620	SS316, SP	50	111-01502
MBT33XHFC	12.3	838.0	254.0	1,620	SS316, SP	50	111-00302
MBT43XHFC	12.3	1,092.0	330.0	1,620	SS316, SP	25	111-01503
MBT49XHFC	12.3	1,245.0	380.0	1,620	SS316, SP	25	111-01504
MBT14UHFC	16.0	362.0	102.0	2,500	SS316, SP	50	111-01512
MBT17UHFC	16.0	434.0	125.0	2,500	SS316, SP	50	111-01513
MBT20UHFC	16.0	521.0	152.0	2,500	SS316, SP	50	111-01514
MBT23UHFC	16.0	575.0	168.0	2,500	SS316, SP	50	111-01515
MBT27UHFC	16.0	681.0	203.0	2,500	SS316, SP	50	111-01516

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Cable Ties with Ball-Lock and Coating

- **MBT-FC-Series**

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Pack Cont.	Article-No.
MBT30UHFC	16.0	754.0	225.0	2,500	SS316, SP	50	111-01517
MBT33UHFC	16.0	838.0	254.0	2,500	SS316, SP	50	111-01518
MBT43UHFC	16.0	1,092.0	330.0	2,500	SS316, SP	25	111-01519
MBT49UHFC	16.0	1,245.0	380.0	2,500	SS316, SP	25	111-01520

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

Double Wrap Cable Ties with Ball-Lock

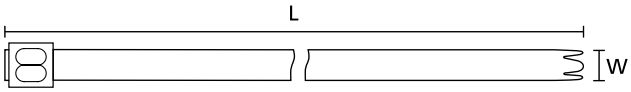
- **MBTXHD- / MBTUHD-Series**

The double wrap ties of the MBT-series are used in applications where a fixing requires an extraordinary high tensile strength.

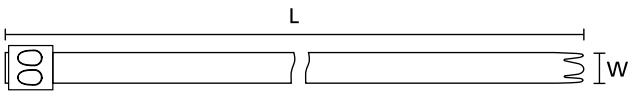
Features and Benefits

- Stainless steel MBT ties with double wrap operation
- Wraps around the bundle and passes through the head twice
- Very high tensile strength to carry enormous applied loads
- Head with two locking balls
- Resistant to arduous conditions and environments

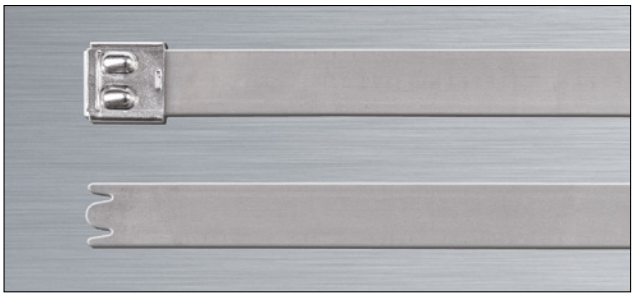
MBT_UHD.



MBT_XHD



MBT_UHD



MBT_UHD Double Band.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Pack Cont.	Article-No.
MBT27XHD	12.3	681.0	100.0	5,000	SS316	50	111-01307
MBT33XHD	12.3	838.0	120.0	5,000	SS316	50	111-01308
MBT43XHD	12.3	1,092.0	160.0	5,000	SS316	25	111-01309
MBT49XHD	12.3	1,245.0	180.0	5,000	SS316	25	111-01310
MBT60XHD	12.3	1,524.0	230.0	5,000	SS316	25	111-01311
MBT27UHD	16.0	681.0	100.0	7,000	SS316	50	111-01312
MBT33UHD	16.0	838.0	120.0	7,000	SS316	50	111-01313
MBT43UHD	16.0	1,092.0	160.0	7,000	SS316	25	111-01314
MBT49UHD	16.0	1,245.0	180.0	7,000	SS316	25	111-01315
MBT60UHD	16.0	1,524.0	230.0	7,000	SS316	25	111-01316

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Date of issue: January 2014

Double Wrap Cable Ties with Ball-Lock and Coating

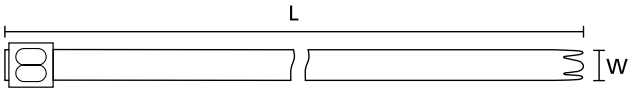
- **MBTXHDFC- / MBTUHDFC-Series**

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits.

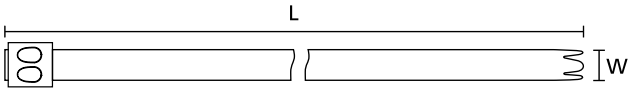
MBT_UHDFC.

Features and Benefits

- MBT cable ties, made from stainless steel SS316 with a polyester coating
- Patented non-releasable locking feature
- Double wrap operation
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- Antimagnetic
- High temperature resistant
- Non-burning



MBT_XHDFC



MBT_UHDFC

Material specification please see page 22.

Application tools please see page 302.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Pack Cont.	Article-No.
MBT27XHDFC	12.3	681.0	100.0	2,500	SS316, SP	50	111-01505
MBT33XHDFC	12.3	838.0	120.0	2,500	SS316, SP	50	111-01506
MBT43XHDFC	12.3	1,092.0	160.0	2,500	SS316, SP	25	111-01507
MBT49XHDFC	12.3	1,245.0	180.0	2,500	SS316, SP	25	111-01508
MBT60XHDFC	12.3	1,524.0	230.0	2,500	SS316, SP	25	111-01509
MBT27UHDFC	16.0	681.0	100.0	5,000	SS316, SP	50	111-01521
MBT33UHDFC	16.0	838.0	120.0	5,000	SS316, SP	50	111-01522
MBT43UHDFC	16.0	1,092.0	160.0	5,000	SS316, SP	25	111-01523
MBT49UHDFC	16.0	1,245.0	180.0	5,000	SS316, SP	25	111-01524
MBT60UHDFC	16.0	1,524.0	230.0	5,000	SS316, SP	25	111-01525

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Date of issue: January 2014

Material Specification Overview

Material	Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*			
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		
Ethylenterafluori-neethylen	E/TFE	-80 °C to +170 °C	Blue (BU)	UL94 V0	• Resistance to radioactivity • UV- resistant, not moisture sentitive • 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	RoHS	HF	
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	RoHS	HF	
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	RoHS	HF	LFH
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL94 V2	• High yield strength	RoHS		
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL94 V2	• High yield strength	RoHS	HF	
Polyamide 6.6, Glassfibre reinforced	PA66GF13, PA66GF15	-40 °C to +105 °C	Black (BK)	UL94 HB	• Good resistance to: lubricants, vehicle fuel, salt water and many solvents	RoHS	HF	
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	RoHS	HF	
Polyamide 6.6 Heat Stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL94 V2	• High yield strength • Modified elevated max. temperature	RoHS	HF	
Polyamide 6.6 High Imp. Mod., Heat Stab.	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 Imp. Mod. 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	RoHS	HF	
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		

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

**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.

N = Minimum Tensile Strength

Date of issue: January 2014

Material Specification Overview

Material	Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	
Polyamide 6.6 high impact modified, heat and UV stabilised	PA66-HIRHSW	-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	RoHS HF
Polyamide 6.6 UV Resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL94 V2	• High yield strength • UV-resistant	RoHS HF
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL94 V0	• High yield strength • Low smoke emission	RoHS HF LFH
Polyamide 6.6 V0 High Oxygen Index	PA66-V0-HOI	-40 °C to +85 °C, (+105 °C, 500 h)	White (WH)	UL94 V0	• High yield strength • Low smoke emissions	RoHS HF LFH
Polyamide 6.6 with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL94 HB	• High yield strength	RoHS HF
Polyamide 6 high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL94 HB	• Limited brittleness sensitivity • Higher flexibility at low temperature	RoHS
Polyester	SP	-50 °C to +150 °C	Black (BK)		• UV-resistant • Good chemical resistance to: most acids, alkalis and oils	RoHS HF LFH
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	RoHS HF LFH
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	RoHS HF
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL94 V0	• Low smoke emissions	RoHS HF LFH
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	RoHS HF
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	RoHS HF
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL94 V0	• Low moisture absorption • Good chemical resistance to: acids, ethanol, oil	RoHS
Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)		• Corrosion resistant • Antimagnetic	RoHS HF LFH
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL94 HB	• High elastic • Good chemical resistance to: • acids, bases, oxidizing agents	RoHS HF

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

*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.

**More colours on request.

N = Minimum Tensile Strength