

## Cable ties for outdoor use (UV-resistant)

### T-Series in PA66W/UV black

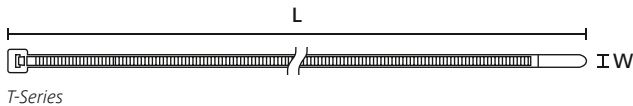
These inside serrated cable ties are made of UV-resistant Polyamide 6.6 (PA66W/UV) and thus suitable for outdoor applications. UV stabilised cable ties resist UV radiation for a considerably longer period compared to standard PA66 cable ties. They can easily be used for bundling and securing cables, pipes and hoses especially in outdoor areas.

#### Features and benefits

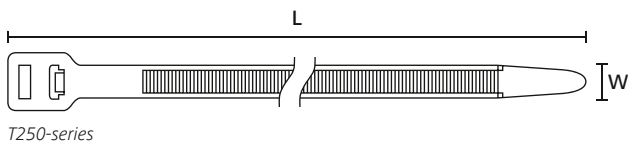
- UV-resistant black cable tie available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simple to insert due to bent tail



UV-resistant T-Series cable ties (PA66W/UV).



Material specification please see page 26.



Specific part numbers according to EN45545 available on request.

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66W	Black (BK)	100 pcs.	2;5-6;25	111-01960
T18I	2.5	145.0	35.0	80	PA66W	Black (BK)	100 pcs.	2;5-6;25	111-02360
T18L	2.5	205.0	50.0	80	PA66W	Black (BK)	100 pcs.	2;5;25	111-02160
T25LL	2.8	330.0	95.0	110	PA66W	Black (BK)	100 pcs.	2;5-6	111-02660
T30R	3.5	150.0	35.0	135	PA66W	Black (BK)	100 pcs.	2;5-6;25	111-03260
T30L	3.5	198.0	50.0	135	PA66W	Black (BK)	100 pcs.	2;5-6;25	111-03460
T30LL	3.5	290.0	80.0	135	PA66W	Black (BK)	100 pcs.	2;5-6;25	111-03570
T40R	4.0	175.0	40.0	180	PA66W	Black (BK)	100 pcs.	2;5-6;8;25	111-01625
T50S	4.6	150.0	35.0	225	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10;25	111-05860
T50R	4.6	200.0	50.0	225	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10;25	111-04889
T50M	4.6	245.0	65.0	225	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10;25	111-06206
T50I	4.6	300.0	85.0	225	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10;25	111-05260
T50L	4.6	390.0	110.0	225	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10;25	111-05440
T50LL	4.6	445.0	130.0	225	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10;25	111-06000
T80R	4.7	210.0	55.0	355	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10-12;25	111-05060
T80I	4.7	305.0	85.0	355	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10-12;25	111-08290
T80L	4.7	390.0	110.0	355	PA66W	Black (BK)	100 pcs.	2-3;5-6;8;10-12;25	111-05460

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.



Add items to your watchlist!

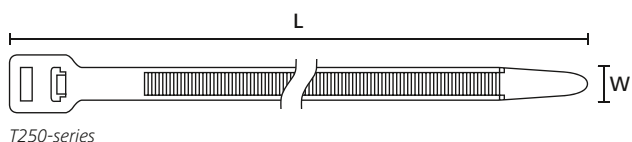
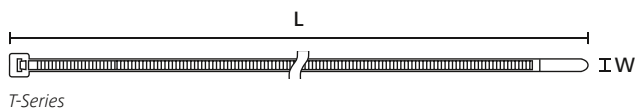
[www.HT.click/9-42](http://www.HT.click/9-42)





## Cable ties for outdoor use (UV-resistant)

### T-Series in PA66W/UV black



TYPE	Width (W)	Length (L)	Bundle Ø max.		Material	Colour	Pack Cont.	Tools	Article-No.
T120S	7.6	225.0	55.0	535	PA66W	Black (BK)	50 pcs.	3;6;10-12;25	111-12830
T120I	7.6	300.0	80.0	535	PA66W	Black (BK)	100 pcs.	3;10-12;25	111-12230
T150R(H)	7.6	365.0	100.0	670	PA66W	Black (BK)	100 pcs.	3;6;10-12;25	111-14860
T120R(E)	7.6	387.0	100.0	535	PA66W	Black (BK)	100 pcs.	3;6;10-12;25	111-12060
T120M	7.6	460.0	125.0	535	PA66W	Black (BK)	100 pcs.	3;6;10-12;25	111-12660
T120L	7.6	760.0	225.0	535	PA66W	Black (BK)	50 pcs.	3;6;10-12;25	111-12430
T150M	8.9	530.0	150.0	780	PA66W	Black (BK)	25 pcs.	6;10-12;25	111-15660
T150L	8.9	820.0	245.0	780	PA66W	Black (BK)	25 pcs.	6;10-12;25	111-15460
T150XL	8.9	1,095.0	330.0	780	PA66W	Black (BK)	25 pcs.	6;10-12;25	111-15502
T150XLL	8.9	1,325.0	405.0	780	PA66W	Black (BK)	25 pcs.	6;10-12;25	111-15305
T250R	12.4	515.0	125.0	1,115	PA66HIRHSUV	Black (BK)	25 pcs.	11-12	111-24805

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									
	2	3	5	6	8	10	11	12	25
	MK20	MK21	MK3PNSP2	EVO7	MK7P	EVO9	EVO9HT	MK9P	EVOcut
	549	549	550	552	554	553	553	555	561

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



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



Add items to your watchlist!  
[www.HT.click/9-43](http://www.HT.click/9-43)

## 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	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	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	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	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

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	• High yield strength • Metal and X-Ray detectable	HF RoHS
<b>Polyamide 6.6,</b> with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	• High yield strength • Metal and X-Ray detectable	HF RoHS
<b>Polyamide 6.6 V0</b>	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	• High yield strength • Low smoke emission	HF LFH RoHS
<b>Polyester</b>	SP	-50 °C to +150 °C	Black (BK)		• UV resistant • Good chemical resistance to most acids, bases and oils	HF LFH RoHS
<b>Polyetheretherketone</b>	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0	• Resistance to radioactivity • Not moisture sensitive • Good chemical resistance to acids, bases, oxidising agents	HF LFH RoHS
<b>Polyethylene</b>	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	• Low moisture absorption • Good chemical resistance to most acids, bases, alcohol, oils	HF RoHS
<b>Polyolefin</b>	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0	• Low smoke emissions	HF LFH RoHS
<b>Polypropylene</b>	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL 94 HB	• Floats in water • Moderate yield strength • Good chemical resistance to acids, bases and solvents	HF RoHS
<b>Polypropylene, Ethylene Propylene Diene Terpolymer</b> rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB	• Good resistance to high temperature • Good chemical and abrasion resistance	HF RoHS
<b>Polypropylene</b> with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	• Metal and X-Ray detectable • Heat resistant • Moderate yield strength • Good chemical resistance	RoHS
<b>Polypropylene</b> with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	• High yield strength • Metal and X-Ray detectable	HF RoHS
<b>Polyvinylchloride</b>	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	• Low moisture absorption • Good chemical resistance to acids, bases, salts, alcohol, oils	RoHS
<b>Stainless Steel, Stainless Steel</b>	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	• Corrosion resistant • Antimagnetic • Weather resistant • Chemical resistance • SS316 also resistant against seawater, salt spray and anorganic acids	HF LFH RoHS
<b>Thermoplastic Polyurethane</b>	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	• High elasticity • Good chemical resistance to acids, bases and oxidising agents	HF RoHS

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 = Halogenfree

LFH = Limited Fire Hazard

RoHS = Restriction of Hazardous Substances