

Cable ties for special environments

Polyamide 6.6 cable ties – Heat stabilised + UV-resistant



Characteristics

- Outdoor or indoor use
- For OEM and MRO applications like: transportation, lawn (garden/farm), construction equipment, recreational vehicles
- Provides a smooth, low-profile look and offers unlimited tensioning range for a perfect fit



UV-resistant



Heat resistant

Technical information

- Material - Moulding: Polyamide 6.6
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -60°C to +105°C (-76°F to +221°F)
- Min. installation temp.: -40°C (-40°F)
- Colour: Black
- Halogen free, silicone free

Polyamide 6.6 cable ties – Heat stabilised + UV-resistant



E49405

Cat. n°	Type DSG	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Min. tensile strength		Bulk pkg. [pcs]
			[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]	
TY23MX-A	2/21	V-2	4.8 - 16	0.19 - 0.63	92	3.62	2.3	0.09	18	80	1,000
TY24MX-A	2/21	V-2	5.2 - 35	0.20 - 1.38	140	5.51	3.6	0.14	30	133	1,000
TY25MX-A	2S/21S	V-2	6.2 - 48	0.24 - 1.89	186	7.32	4.8	0.19	50	220	1,000
TY27MX-A	2S/21S	V-2	8 - 95	0.31 - 3.74	340	13.39	6.9	0.27	120	540	500
TY28MX-A	2S/21S	V-2	3-102	0.24 - 4.00	361	14.21	4.8	0.19	50	220	1,000

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling



ERG50

For use with 2.3mm (80N) Cable ties.
See page C40.

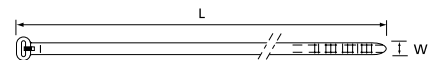


ERG120

For use with 2.3mm to 6.9mm (80N to 540N) Cable ties.
See page C40.

* ERG120 cannot be used for TY23MX-A and TY24MX-A ties

Diagram



Cable ties for special environments

Polyamide 4.6 cable ties – Extra high temperature



Characteristics

- Ideal for Industrial OEM and MRO (includes, but not limited to metal processing, paper mills, lighting and commercial construction markets with high temperature environments up to 150°C (302°F)
- For high temperature environments in commercial construction applications such as: metal processing, paper mills, lighting, automotive.



Heat
resistant

Technical information

- Material - Moulding: Polyamide 4.6
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -40°C to +150°C (-40°F to +302°F)
- Min. installation temp.: -18°C (0F)
- Colour: Light green
- Flammability rating: UL 94 V-2
- Halogen free, silicone free

Polyamide 4.6 cable ties – Extra high temperature



Cat. n°.	Type DSG	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Min. tensile strength		Bulk pkg. [pcs]
			[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]	
TYHT23M	1/11	V-2	2 - 20	0.08 - 0.79	95	3.74	2.3	0.09	18	80	1,000
TYHT24M	1/11	V-2	2 - 29	0.08 - 1.14	143	5.63	3.6	0.14	40	178	1,000
TYHT25M	1/11	V-2	5 - 45	0.20 - 1.77	192	7.56	4.8	0.19	50	222	1,000
TYHT28M	1/11	V-2	5 - 102	0.20 - 4.02	367	14.45	4.8	0.19	50	222	1,000
TYHT27M	1/11	V-2	5 - 89	0.20 - 3.50	349	13.74	6.9	0.27	120	534	500
TYHT277M	1/11	V-2	6 - 177	0.24 - 6.97	617	0.24	7.0	0.28	120	540	500

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling



ERG50

For use with 2.3mm to 4.8mm (80N to 220N) Cable ties.
See page C40.



ERG120

For use with 2.3mm to 6.9mm (80N to 540N) Cable ties.
See page C40.

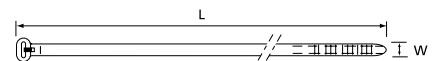


WT199

For use with 2.3mm to 4.8mm (80N to 220N) Cable ties.
See page C41.

* ERG120 cannot be used for TYHT23M and TYHT24M ties

Diagram



Cable ties for special environments

Detectable cable ties



Characteristics

- The Ty-Rap detectable cable ties from ABB incorporate a unique compound (patent pending) that can be detected by X-Ray equipment, metal detectors and visual inspection equipment.
- Particularly recommended for applications in food, pharmaceutical and other contaminationsensitive industries
- Designed to have the best detectability by metal detectors
- Detectable by X-Ray equipment
- Bright blue colour for an easy visual detection
- Available in standard Polyamide 6.6 or in Polypropylene version for liquid-processing applications.

Technical information

- Material - Moulding: Polyamide 6.6 or Polypropylene
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -40°C to +85°C (-40°F to +185°F)
- Colour: Blue
- Halogen free, silicone free



Detectable

Detectable cable ties

Cat. n°.	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Min. tensile strength		Std. pkg. [pcs]
		[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]	
Detectable Polyamide 6.6										
TY523M-NDT	HB	9 - 16	0.35 - 0.63	92	3.6	2.3	0.09	18	80	100
TY524M-NDT	HB	10 - 35	0.39 - 1.38	137	5.4	3.6	0.14	40	180	100
TY525M-NDT	HB	10 - 44	0.41 - 1.75	186	7.3	4.7	0.18	50	222	100
TY25M-NDT	HB	10 - 44	0.41 - 1.75	186	7.3	4.7	0.18	50	222	1,000
TY527M-NDT	HB	13 - 89	0.50 - 3.50	343	13.5	6.9	0.27	120	540	50
TY27M-NDT	HB	13 - 89	0.50 - 3.50	343	13.5	6.9	0.27	120	540	500
TY528M-NDT	HB	13 - 101	0.51 - 4.00	361	14.20	4.7	0.18	50	222	100
Detectable Polypropylene										
TY523M-PDT	HB	9 - 16	0.35 - 0.63	92	3.6	2.3	0.09	11	49	100
TY525M-PDT	HB	10 - 44	0.41 - 1.75	186	7.3	4.7	0.18	30	135	100
TY527M-PDT	HB	13 - 101	0.50 - 4.00	340	13.4	7.0	0.27	60	267	50
TY528M-TDT	HB	13 - 101	0.50 - 4.00	361	14.2	4.7	0.18	30	135	100

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

For mounting bases available in these same materials, see page C96 and C97

Tooling



ERG50

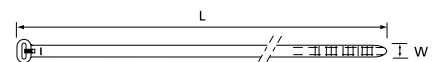
For use with 2.3mm to 4.8mm (80N to 220N) Cable ties. See page C40.



ERG120

For use with 4.8mm to 7.0mm (220N to 540N) Cable ties. See page C40.

Diagram



Cable ties for special environments

Polyamide 6.6 cable ties – Flame retardant



Characteristics

- Outdoor or indoor use
- The flame retardant version is suitable for applications where human life is at stake. Ideal for use where low flammability and low smoke emission are required, eg in public transport, buildings accessible to the public, tunnels, etc.



Flame
retardant

Technical information

- Material - Moulding: Polyamide 6.6
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -20°C to +65°C (-4°F to +149°F)
- Min. installation temp.: 0°C (32°F)
- Colour: White
- Halogen free, silicone free



E49405

Polyamide 6.6 cable ties – Flame retardant

Cat. n°.	Type DSG	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Marking Pad Size L x H		Min. tensile strength		Std. pkg. [pcs]
			[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]	
TY23MFR	2/21	V-0	1.5 - 16	0.06 - 0.63	92	3.62	2.4	0.09	N/A	N/A	18	80	1,000
TY232MFR	2/21	V-0	1.5 - 51	0.06 - 2.01	203	7.99	2.4	0.09	N/A	N/A	18	80	1,000
TY24MFR	2/21	V-0	2 - 35	0.08 - 1.38	140	5.51	3.6	0.14	N/A	N/A	40	180	1,000
TY25MFR	2S/21S	V-0	3 - 48	0.12 - 1.89	186	7.62	4.6	0.18	N/A	N/A	50	222	1,000
TY28MFR	2/21	V-0	3 - 102	0.12 - 4.02	360	14.17	4.6	0.18	N/A	N/A	50	222	1,000
TY27MFR	2S/21S	V-0	6 - 95	0.24 - 3.74	335	13.19	7.6	0.30	N/A	N/A	120	540	500
TY272MFR	2S/21S	V-0	4.8 - 51	0.19 - 2.01	223	8.78	7.0	0.28	N/A	N/A	120	540	500
TY53MFR	N/A	V-0	1.5 - 22	0.06 - 0.87	102	4.00	2.4	0.09	20.6 x 9.1	0.81 x 0.36	18	80	500
TY153MFR	N/A	V-0	1.5 - 22	0.06 - 0.87	110	4.35	2.5	0.10	19.8 x 14.0	0.78 x 1	18	80	500

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling

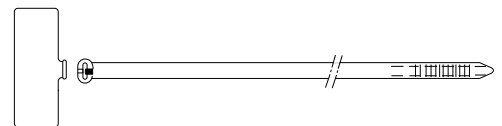
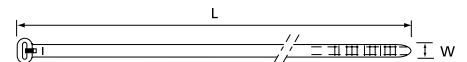


ERG50
For use with 4.8mm
(220N) Cable ties.
See page C40.



ERG120
For use with 4.8mm
(220N) Cable ties.
See page C40.

Diagrams



Cable ties for special environments

Polyamide 12 cable ties – UV-resistant



Characteristics

- The polyamide 12 provides very good resistance to ultraviolet light and chemical exposure
- Polyamide 12 absorbs less moisture than polyamide 6.6 and the effect of water on its properties is less important. This makes the product flexible even at low temperatures.

Technical information

- Material - Moulding: Polyamide 12
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -40°C to +85°C (-40°F to +185°F)
- Colour: Black
- Halogen free, silicone free



UV-resistant



Weather-proof

Polyamide 12 cable ties – UV-resistant

Std. Cat. N°.	Bulk Cat. N°.	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Min. tensile strength		Std. pkg. [pcs]	Bulk pkg. [pcs]
			[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]		
TYC525MX	TYC25MX	V-2	3.5 - 45	0.14 - 1.77	186	7.32	4.70	0.19	35	155	100	1,000
-	TYC28MX	V-2	3.5 - 102	0.14 - 4.02	360	14.17	4.70	0.19	35	155	-	1,000
-	TYC272MX	V-2	6 - 51	0.24 - 2.01	222	8.74	7.60	0.30	85	380	-	500
TYC527MX	TTYC27MX	V-2	6 - 89	0.24 - 3.50	343	0.14	7.62	0.30	85	380	50	500
-	TYC29MX	V-2	6 - 229	0.24 - 9.02	771	30.35	7.60	0.30	85	380	-	500

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling

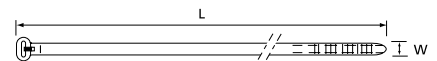


ERG50
For use with 4.7mm to 7.6mm (155N to 380N) Cable ties.
See page C40.



ERG120
For use with 4.7mm to 7.6mm (155N to 380N) Cable ties.
See page C40.

Diagram



Cable ties for special environments

Polyamide 6.6 cable ties – Heat stabilised



Characteristics

- Indoor use only
- Heat stabilised version, for applications up to 105°C (221°F)



Heat resistant

Technical information

- Material - Moulding: Polyamide 6.6
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -60°C to +105°C (-76°F to +221°F)
- Min. installation temp.: -30°C (-22°F)
- Colour: Natural (may have a greenish tint)
- Halogen free, silicone free



Polyamide 6.6 cable ties – Heat stabilised

Cat. n°.	Type DSG	Plenum rating	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Tensile strength		Std. pkg. [pcs]
				[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]	
TYH23M	2/21	AH-2	V-2	1.5 - 16	0.06 - 0.63	92	3.62	2.4	0.09	18	80	1,000
TYH232M	2/21	AH-2	V-2	1.5 - 51	0.06 - 2.01	203	7.99	2.4	0.09	18	80	1,000
TYH24M	2/21	AH-2	V-2	2 - 35	0.08 - 1.38	140	5.51	3.6	0.14	40	180	1,000
TYH242M*	2/21	AH-2	V-2	2 - 51	0.08 - 2.01	208	8.19	3.6	0.14	40	180	1,000
TYH26M	2/21	AH-2	V-2	2 - 76	0.08 - 2.99	284	11.18	3.6	0.14	30	133	1,000
TYH25M	2S/21S	AH-2	V-2	3 - 48	0.12 - 1.89	186	7.32	4.7	0.19	50	222	1,000
TYH253M*	2S/21S	AH-2	V-2	3 - 76	0.12 - 2.99	290	11.42	4.8	0.19	50	222	1,000
TYH28M	2S/21S	AH-2	V-2	3 - 102	0.24 - 4.02	360	14.17	4.8	0.19	50	222	1,000
TYH272M*	2S/21S	AH-2	V-2	4.8 - 51	0.19 - 2.01	222	8.74	7.6	0.30	120	540	500
TYH27M	2S/21S	AH-2	V-2	4.8 - 102	0.19 - 4.02	340	13.39	7.0	0.28	120	540	500
TYH29M	2S/21S	AH-2	V-2	4.8 - 229	0.19 - 9.02	771	30.35	6.9	0.27	120	540	500

* Not UL recognised

Description of Cat. n° structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling

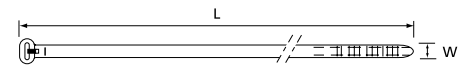


ERG50
For use with 2.4mm to 4.8mm (80N to 220N) Cable ties.
See page C40.



ERG120
For use with 4.7mm to 7.0mm (220N to 540N) Cable ties.
See page C40.

Diagram



Cable ties for special environments

Polypropylene cable ties – Weatherable



Characteristics

- Outdoor or indoor use
- Polypropylene weatherable version, for increased resistance to chemicals
- Resistant against inorganic acids, polyhydric alcohols, neutral and basic salts



UV-resistant



Chemically resistant

Technical information

- Material - Moulding: Polypropylene
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -40°C to +85°C (-40°F to +185°F)
- Colour: Black
- Halogen free, silicone free

Polypropylene cable ties – Weatherable

Cat. n°.	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Min. tensile strength		Std. pkg. [pcs]
		[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]	
TYP23MX	HB	2 - 16	0.08 - 0.63	92	3.62	2.4	0.09	18	80	1,000
TYP25MX	HB	3.5 - 45	0.14 - 1.77	186	7.32	4.8	0.19	30	133	1,000
TYP28MX	HB	3.5 - 102	0.14 - 4.02	360	14.18	4.8	0.19	30	133	1,000
TYP27MX	HB	6 - 90	0.24 - 3.54	340	13.39	7.0	0.28	60	270	500

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling



ERG50

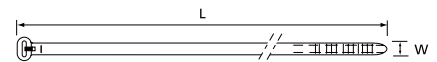
For use with 2.4mm to 4.8mm (50N to 130N) Cable ties. See page C40.



ERG120

For use with 7mm (270N) Cable ties. See page C40.

Diagram



Cable ties for special environments

Fluoropolymer cable ties – ECTFE



Characteristics

- Indoor use only
- Outstanding characteristic: lower smoke density when burnt
- Recommended for applications where smoke generation is a concern, such as plenum areas



UV-resistant



Flame retardant



Low smoke

Technical information

- Material - Moulding: Fluoropolymer ECTFE
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -60°C to +160°C (-76°F to +320°F)
- Min. installation temp.: -60°C (-76°F)
- Colour: Maroon
- Flammability rating: UL 94 V-0

Fluoropolymer cable ties – ECTFE

Std. Cat. N°.	Bulk Cat. N°.	Type DSG	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Tensile strength		Std. pkg. [pcs]	Bulk pkg. [pcs]
				[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]		
TYV523M	TYV23M	2/21	V-0	1.5 - 16	0.06 - 0.63	92	0.36	2.3	0.09	18	80	100	1,000
TYV525M	TYV25M	2/21	V-0	3.0 - 48	0.12 - 1.89	186	7.32	4.7	0.19	50	222	100	1,000

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling



ERG50

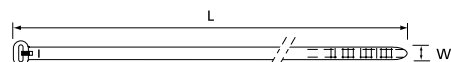
For use with 2.3mm to 4.7mm (80N to 220N) Cable ties. See page C40.



ERG120

For use with 4.7mm (220N) Cable ties. See page C40.

Diagram



Cable ties for special environments

Fluoropolymer cable ties – ETFE



Characteristics

- Indoor use only
- ETFE Fluoropolymer version, resistant to chemicals and to radiation
- Non-outgassing properties for zero gravity applications
- Typical applications include: nuclear, power plants, space industry, etc.

Technical information

- Material - Moulding: Fluoropolymer ETFE
- Material - Locking barb: 316 grade stainless steel
- Temperature range: -45°C to +150°C (-49°F to 302°F)
- Min. installation temp.: -20°C (-4°F)
- Colour: Aquamarine
- Silicone free



UV-resistant



Radiation resistant



Chemically resistant

Fluoropolymer cable ties – ETFE



Std. Cat. N°.	Bulk Cat. N°.	Type DSG	ANSI UL94 Flame rating	Wire bundle dia. from ... to		Length L		Width W		Min. tensile strength		Std. pkg. [pcs]	Bulk pkg. [pcs]
				[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[lb]	[N]		
TYZ523M*	TYZ23M*	1/11	V-0	1.5 - 16	0.06 - 0.63	92	3.62	2.3	0.09	18	80	100	1,000
TYZ525M	TYZ25M	1/11	V-0	3 - 48	0.12 - 1.89	186	7.32	4.3	0.17	50	222	100	1,000
TYZ528M	TYZ28M	1/11	V-0	3 - 102	0.12 - 4.02	360	14.17	4.4	0.17	50	222	100	500
TYZ527M	TYZ27M	1/11	V-0	6 - 95	0.24 - 3.74	340	13.39	6.8	0.27	120	540	50	100

* Cat. no. TYZ23M and TYZ523M are UL listed (E49405), all other items are UL recognized

Description of Cat. n°. structure: see page C13

Description of materials and properties: see pages C132 to C144

Tooling



ERG50

For use with 2.3mm to 4.3mm (80N to 220N) Cable ties. See page C40.



ERG120*

For use with 2.3mm to 6.8mm (80N to 540N) Cable ties. See page C40.

*ERG120 not to be used on TYZ23M

Diagram

