

Ty-Rap® High Performance Cable Ties

Features and Benefits

When strength, aesthetics, reliability and performance are required, knowledgeable professionals turn to the original and the best source for cable ties and accessories. Ty-Rap® fastening systems include a full range of cable ties, identification ties, clamps, mounting bases, harnessing aids and installing tools. Using Ty-Rap® fastening systems for all wiring jobs, large and small, will speed and improve the reliability of harnessing and wire bundling while saving you money.

Ty-Rap®

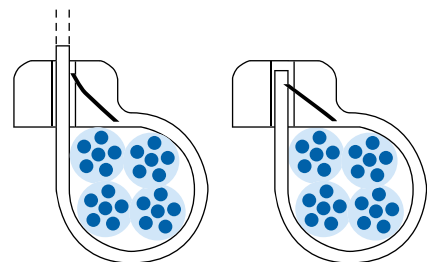
Rounded Edges, on the head and the strap, provide a comfortable handling of the ties and prevent sharp edges from damaging the cables. This gradual transition from the strap to the head protects the material against breaking at this most critical point. The edges of the head are also rounded off to offer maximum protection from injury.

Smooth, Notchless Body, reduces stress concentration points, making the Ty-Rap® ties stronger and thinner than conventional ties with notched bodies. The low-profile design of the head allows secure tying in tight spaces. No serration, means infinite adjustment (tensioned right every time).

Ribbed and Stippled Surface, to prevent the tie from slipping around and along the bundle under vibration conditions and external shock.

“The Grip of Steel”

Non-Magnetic Stainless Steel Locking Barb – marine grade type 316 - that firmly anchors inside the tie head, ensures a strong, reliable and long lasting fastening under adverse conditions.



Non-Slip Tail, for an easy grip and pulling through the head during tensioning.

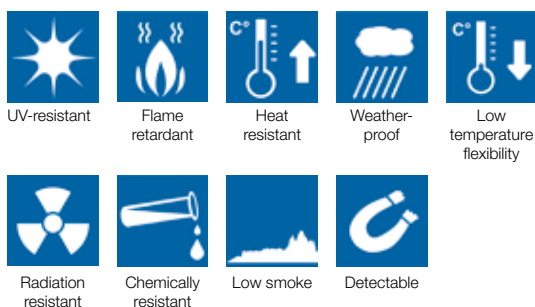
Extensive range of approvals and certifications: Germanischer Lloyd, Lloyd's Register of Shipping, VG, Mil Specification, American Bureau of Shipping (ABS); CE declaration, compliant to the low voltage directive and EN/IEC 62275 and UL 62275



Wide Range of Size Combinations: several lengths up to 1143 mm, in 6 typical widths with a tensile strength up to 780N, to fasten cable bundles with a diameter up to 330mm.

Dedicated Tooling, to ensure that the excess end of the Ty-Rap® tie is automatically cut off and the slight over cut retracts into the head, eliminating the risk of injury from protruding sharp edges.

Most Extensive Choice of Special Materials: in addition to Polyamide 6.6 (standard, UV-resistant, heat stabilised, flame retardant, heat stabilised / UV-resistant), Polyamide 4.6 (extra high temperature) and Polyamide 12, the Ty-Rap® ties are available in Polypropylene, Fluoropolymer (ECTFE), Fluoropolymer (ETFE) and the recently introduced Detectable Polyamide 6.6 and Detectable Polypropylene. UL 94 V-0, UL 94 V-2 and UL 94 HB.



Angled Tail (turned up) for fast and easy insertion into the locking head and ideally suited to being picked up from a flat work area.

Wide Choice of Colours: 10 standard colours are available and pre-printed customized ties in any of the standard colours can be supplied on demand.



Different Types of Packaging, including the unique "workbench boxes" for fast working without problems or losses. Recyclable packaging for a better contribution to the environment.

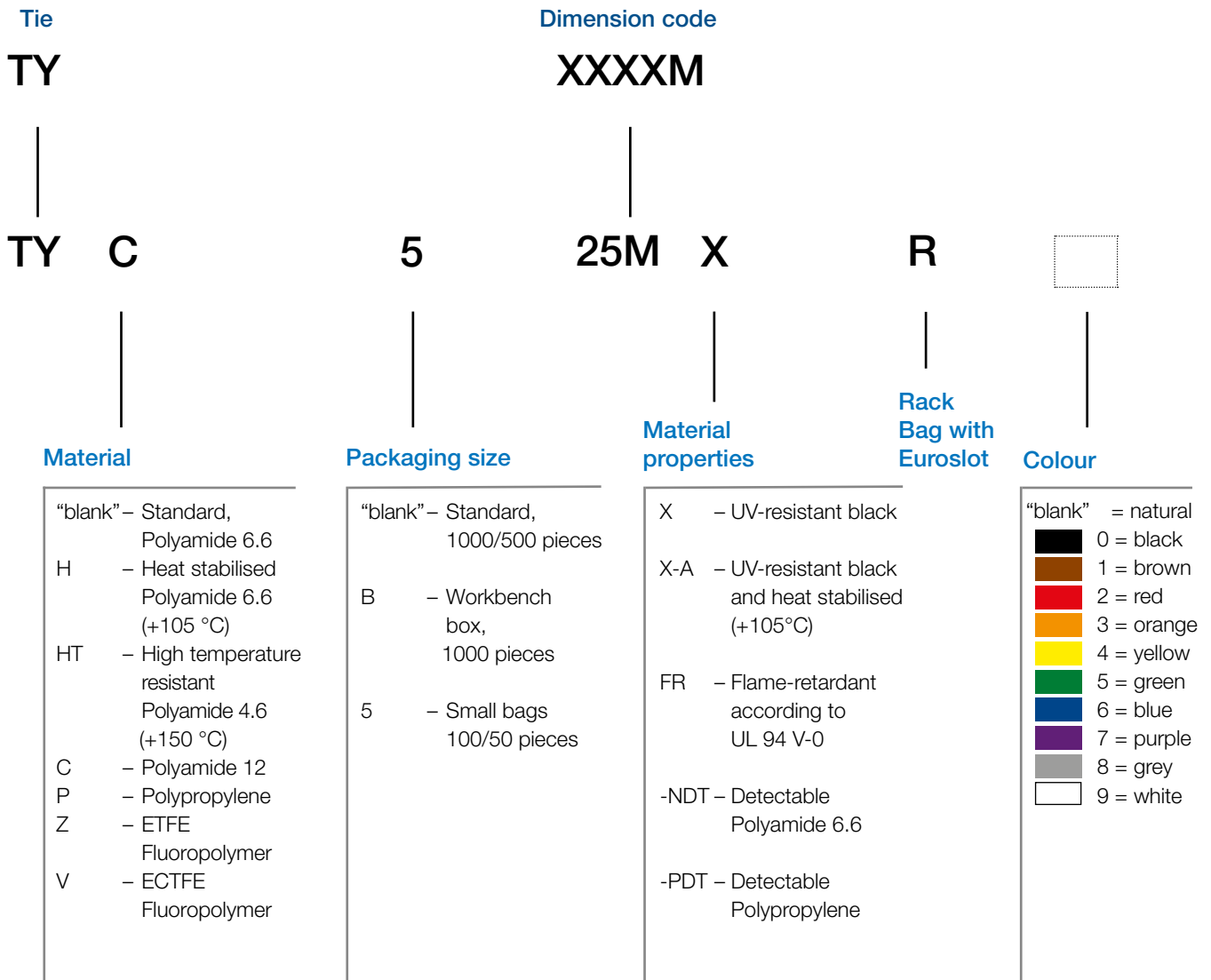
Outstanding Range of Special Ties, all with the famous stainless steel locking device: ties with mounting hole or integrated peg/nail, panel mounting ties, identification ties with integrated label,...

Broad Range of Mounting Bases and Accessories.

Ty-Rap® High Performance Cable Ties

Product reference structure

Ty-Rap® code



Note: Nylon (Polyamide) is inherently susceptible to environmental conditions. Ty-Rap® cable ties are moisturised to optimum performance levels at machine-side and should be stored in cool dry areas out of direct sunlight. Cable ties are packaged in plastic bags to contain moisture and should remain sealed until ready for use.

Ty-Rap® High Performance Cable Ties

Polyamide 6.6 cable ties – Natural

Characteristics

- Standard version (Polyamide 6.6), to cover most indoor applications
- Several lengths and 6 typical widths with a tensile strength up to 780N, to cover the most demanding applications
- Packaging: OEM bulk quantities in recyclable polythene bags
- Also available in small bags with Euroslot (see page 12) and in workbench boxes (see page 14)

Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-60°C to +85°C
Min. Installation Temp.	-20°C
Colour	Natural
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free

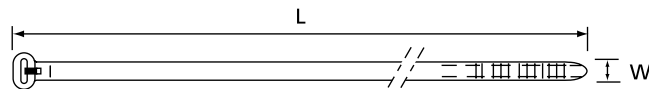


Product Ref.	MIL Spec.	Length	Width	Thickness	Bundle ø	Min. tensile strenght [N]	Quantity [pieces]	Tooling
		L [mm]	W [mm]	[mm]	from ... to [mm]			
TY23M	MS-3367-4	92	2.3	1.0	1.5 - 22	80	1000	ERG50
TYB2315M	-	178	2.3	1.0	1.5 - 32	80	1000	
TY232M	-	203	2.3	1.0	1.5 - 51	80	1000	
TY234M	-	356	2.3	1.0	1.5 - 102	80	1000	
TY24M	MS-3367-5	140	3.6	1.1	2 - 35	178	1000	
TY242M	-	208	3.6	1.1	2 - 51	180	1000	
TY26M	-	284	3.6	1.1	2 - 76	130	1000	
TY244M	-	368	3.6	1.1	2 - 102	134	1000	
TY25M	MS-3367-1	186	4.8	1.1	3 - 48	222	1000	
TY253M	MS-3367-7	290	4.8	1.3	3 - 78	222	1000	
TY28M	MS-3367-2	361	4.8	1.3	3 - 102	222	1000	
TY271M	-	150	7.0	1.6	6 - 31	540	500	ERG120 L-500-EU
TY272M	-	223	6.9	1.6	6 - 51	534	500	
TY27M	MS-3367-3	340	7.0	1.6	6 - 102	540	500	
TY275M	-	457	7.0	1.6	6 - 127	540	500	
TY277M	-	617	7.0	1.6	6 - 177	540	500	
TY29M	MS-3367-6	771	6.9	1.5	6 - 229	540	500	WT3D L-500-EU
TY53510M	-	889	8.2	1.7	to 254	780	50	
TY54513M	-	1143	8.2	1.7	to 330	780	50	

Description of product reference structure: see page 8

Description of materials and properties: see pages 144 to 155

For tooling specifications: see pages 130 to 143



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* Some approvals may not be applicable to all the Product References. Contact your Sales Office for approvals limitations

Ty-Rap® High Performance Cable Ties

Polyamide 6.6 cable ties – UV-resistant black

Characteristics

- UV-resistant version, especially recommended for outdoor applications
- Black version (2% carbon for military specifications)
- Also available in heat stabilised + UV-resistant version (contains 2% carbon according to military application), for outdoor applications that also require a resistance to high temperature (+105 °C). See page 19 (TY...MX-A series)
- Several lengths and 6 typical widths with a tensile strength up to 780N, to cover the most demanding applications
- Packaging: OEM bulk quantities in recyclable polythene bags
- Also available in small bags with Euroslot (see page 12) and in workbench boxes (see page 14)

Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-60°C to +105°C
Min. Installation Temp.	-30°C
Colour	Black
Flammability rating	UL 94 V-2
Other properties	UV-resistant, Halogen free, Silicone free



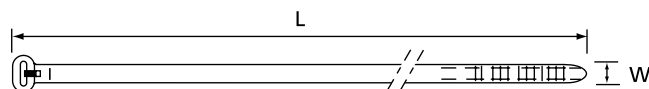
Product Ref.	MIL Spec.	Length L [mm]	Width W [mm]	Thickness [mm]	Bundle ø from ... to [mm]	Min. tensile strenght [N]	Quantity [pieces]	Tooling
TY23MX	MS-3367-4	92	2.3	1.0	1.5 - 22	80	1000	ERG50
TYB2315MX	-	178	2.3	1.0	1.5 - 32	80	1000	
TY232MX	-	203	2.3	1.0	1.5 - 51	80	1000	
TY234MX	-	356	2.3	1.0	1.5 - 102	80	1000	
TY24MX	MS-3367-5	140	3.6	1.1	2 - 35	180	1000	
TY242MX	-	208	3.6	1.1	2 - 51	180	1000	
TY26MX	-	284	3.6	1.1	2 - 76	130	1000	ERG50 ERG120
TY244MX	-	368	3.6	1.1	2 - 102	130	1000	
TY25MX	MS-3367-1	186	4.8	1.1	3 - 48	220	1000	
TY253MX	MS-3367-7	290	4.8	1.3	3 - 78	222	1000	
TY28MX	MS-3367-2	361	4.8	1.3	3 - 102	222	1000	
TY271MX	-	150	7.0	1.6	6 - 31	540	500	
TY272MX*	-	223	6.9	1.6	6 - 51	540	500	ERG120 L-500-EU
TY27MX*	MS-3367-3	340	7.0	1.6	6 - 102	540	500	
TY275MX*	-	457	7.0	1.6	6 - 127	540	500	
TY277MX*	-	617	7.0	1.6	6 - 177	540	500	
TY29MX*	MS-3367-6	771	6.9	1.5	6 - 229	540	500	WT3D L-500-EU
TY53510MX	-	889	8.2	1.7	to 254	780	50	
TY54513MX	-	1143	8.2	1.7	to 330	780	50	

* Min. installation temp : -40°C

Description of product reference structure: see page 8

Description of materials and properties: see pages 144 to 155

For tooling specifications: see pages 130 to 143



* Some approvals may not be applicable to all the Product References. Contact your Sales Office for approvals limitations

Ty-Rap® High Performance Cable Ties

Polyamide 6.6 cable ties – Coloured

Characteristics

Ty-Rap® ties in Polyamide 6.6 are available in 10 different colours and pre-printed ties in any of the standard colours can be supplied on demand.

- Several lengths and 6 typical widths with a tensile strength up to 780 N, to cover the most demanding applications
- Standard packaging is 1.000 / 500 pieces but smaller packaging (100 pieces) can also be supplied on request
- Please contact your Sales Office for product availability and Minimum Order Quantity

Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-60°C to +85°C
Min. Installation Temp.	-20°C
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free



Product Ref.	MIL Spec.	Length L [mm]	Width W [mm]	Thickness [mm]	Bundle ø from ... to [mm]	Min. tensile strenght [N]	Quantity ** [pieces]	Tooling
TY23M-*	MS-3367-4	92	2.3	1.0	1.5 - 22	80	1000	ERG50
TY232M-*	-	203	2.3	1.0	1.5 - 51	80	1000	
TY234M-*	-	356	2.3	1.0	1.5 - 102	80	1000	
TY24M-*	MS-3367-5	140	3.6	1.1	2 - 35	180	1000	
TY242M-*	-	208	3.6	1.1	2 - 51	180	1000	
TY26M-*	-	284	3.6	1.1	2 - 76	130	1000	ERG50 ERG120
TY244M-*	-	368	3.6	1.1	2 - 102	134	1000	
TY25M-*	MS-3367-1	186	4.8	1.1	3 - 48	222	1000	
TY253M-*	MS-3367-7	290	4.8	1.3	3 - 78	222	1000	
TY28M-*	MS-3367-2	361	4.8	1.3	3 - 102	222	1000	
TY271M-*	-	150	7.0	1.6	6 - 31	540	500	ERG120 L-500-EU
TY272M-*	-	223	6.9	1.6	6 - 51	540	500	
TY27M-*	MS-3367-3	340	7.0	1.6	6 - 102	540	500	
TY275M-*	-	457	7.0	1.6	6 - 127	540	500	
TY277M-*	-	617	7.0	1.6	6 - 177	540	500	
TY29M-*	MS-3367-6	771	6.9	1.5	6 - 229	540	500	WT3D L-500-EU
TY53510M-*	-	889	8.2	1.7	to 254	780	50	
TY54513M-*	-	1143	8.2	1.7	to 330	780	50	

For cable ties in a specific colour, replace * in the Product Reference by the colour code:

0 = black, 1 = brown, 2 = red, 3 = orange, 4 = yellow, 5 = green, 6 = blue, 7 = purple, 8 = grey and 9 = white



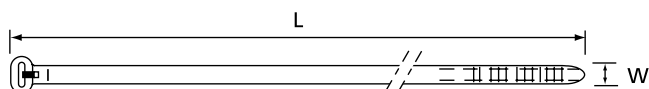
For example: TY23M-1 defines a brown TY23M cable tie. Contact your Sales Office for product availability.

** For smaller quantities, the figure "5" needs to be added to the part number immediately after "TY" - example: TY523M-2 is the same as TY23M-2 but in bags of 100

Description of product reference structure: see page 8

Description of materials and properties: see pages 144 to 155

For tooling specifications: see pages 130 to 143



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*** Some approvals may not be applicable to all the Product References. Contact your Sales Office for approvals limitations

Ty-Rap® High Performance Cable Ties

Polyamide 6.6 cable ties – Natural – Euroslot packaging

Characteristics

The main characteristics of the Ty-Rap® cable ties are shown on pages 6 and 7.

- Standard version (Polyamide 6.6), to cover most indoor applications
- Packaging in small polythene bags with Euroslot, ideal for display and point-of-sales promotion (rack)
- Several lengths and 5 typical widths with a tensile strength up to 540N, to cover the most demanding applications
- Very convenient for small series production: 100 pieces (for cable ties from 2.3 mm to 4.8 mm width) or 50 pieces (for cable ties 6.9 mm width and above)

Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-60°C to +85°C
Min. Installation Temp.	-20°C
Colour	Natural
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free



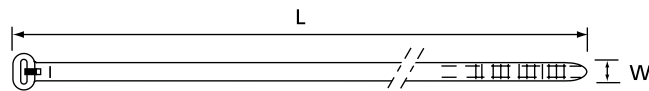
Product Ref.	MIL Spec.	Length L [mm]	Width W [mm]	Thickness [mm]	Bundle ø from ... to [mm]	Min. tensile strenght [N]	Quantity [pieces]	Tooling
TY523MR	MS-3367-4	92	2.3	1.0	1.5 - 22	80	100	ERG50
TY5232MR	-	203	2.3	1.0	1.5 - 51	80	100	
TY5234M	-	356	2.3	1.0	1.5 - 102	80	100	
TY524MR	MS-3367-5	140	3.6	1.1	2 - 35	178	100	
TY5242MR	-	208	3.6	1.1	2 - 51	180	100	
TY526MR	-	284	3.6	1.1	2 - 76	130	100	
TY5244MR	-	368	3.6	1.1	2 - 102	134	100	
TY525MR	MS-3367-1	186	4.8	1.1	3 - 48	222	100	ERG50 ERG120
TY5253MR	MS-3367-7	290	4.8	1.3	3 - 78	222	100	
TY528MR	MS-3367-2	361	4.8	1.3	3 - 102	222	100	
TY5271MR	-	150	7.0	1.6	6 - 31	540	50	ERG120 L-500-EU
TY5272MR	-	223	6.9	1.6	6 - 51	534	50	
TY527MR	MS-3367-3	340	7.0	1.6	6 - 102	540	50	
TY5275M	-	457	7.0	1.6	6 - 127	540	50	
TY5277M	-	617	7.0	1.6	6 - 177	540	50	
TY529M	MS-3367-6	771	6.9	1.5	6 - 229	540	50	

Product References TY5234M, TY5275M, TY5277M and TY529M have no Euroslot

Description of product reference structure: see page 8

Description of materials and properties: see pages 144 to 155

For tooling specifications: see pages 130 to 143



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Ty-Rap® High Performance Cable Ties

Polyamide 6.6 cable ties – UV-resistant black – Euroslot packaging

Characteristics

The main characteristics of the Ty-Rap® cable ties are shown on pages 6 and 7.

- UV-resistant version, especially recommended for outdoor applications
- Black version (2% carbon for military specifications)
- Packaging in small polythene bags with Euroslot, ideal for display and point-of-sales promotion (rack)
- Several lengths and 5 typical widths with a tensile strength up to 540N, to cover the most demanding applications
- Very convenient for small series production: 100 pieces (for cable ties from 2.3 mm to 4.8 mm width) or 50 pieces (for cable ties 6.9 mm width and above)

Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-60°C to +105°C
Min. Installation Temp.	-30°C
Colour	Black (other colours see page 15)
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free



Product Ref.	MIL Spec.	Length L [mm]	Width W [mm]	Thickness [mm]	Bundle ø from ... to [mm]	Min. tensile strenght [N]	Quantity [pieces]	Tooling
TY523MXR	MS-3367-4	92	2.3	1.0	1.5 - 22	80	100	ERG50
TY5232MXR	-	203	2.3	1.0	1.5 - 51	80	100	
TY5234MX*	-	356	2.3	1.0	1.5 - 102	80	100	
TY524MXR	MS-3367-5	140	3.6	1.1	2 - 35	180	100	
TY5242MXR	-	208	3.6	1.1	2 - 51	180	100	
TY526MXR	-	284	3.6	1.1	2 - 76	130	100	
TY5244MXR	-	368	3.6	1.1	2 - 102	130	100	ERG50 ERG120
TY525MXR	MS-3367-1	186	4.8	1.1	3 - 48	220	100	
TY5253MXR	MS-3367-7	290	4.8	1.3	3 - 78	222	100	
TY528MXR	MS-3367-2	361	4.8	1.3	3 - 102	222	100	
TY5271MXR	-	150	6.9	1.6	6 - 31	540	50	ERG120 L-500-EU
TY5272MXR*	-	223	6.9	1.6	6 - 51	540	50	
TY527MXR*	MS-3367-3	340	7.0	1.6	6 - 102	540	50	
TY5275MX*	-	457	7.0	1.6	6 - 127	540	50	
TY5277MX*	-	617	6.9	1.6	6 - 177	540	50	
TY529MX*	MS-3367-6	771	6.9	1.6	6 - 229	540	50	

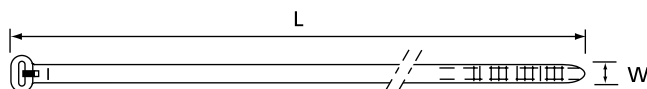
* Min. installation temp : -40°C

Product References TY5234MX, TY5275MX, TY5277MX and TY529MX have no Euroslot

Description of product reference structure: see page 8

Description of materials and properties: see pages 144 to 155

For tooling specifications: see pages 130 to 143



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** Some approvals may not be applicable to all the Product References. Contact your Sales Office for approvals limitations

Ty-Rap® High Performance Cable Ties

Polyamide 6.6 cable ties – Workbench boxes

Characteristics

- An attractive packaging option for high volume manual assembly: 1000 pieces in a workbench box - easy to reach, hence timesaving
- This user-friendly packaging allows fast working without problems or losses

Technical Information

Material - Moulding	Polyamide 6.6
Material - Locking barb	316 grade stainless steel
Temperature range	-60°C to +85°C (natural) -60°C to +105°C (black)
Min. Installation Temp.	-20°C (natural) -30°C (black)
Colour	Natural or UV-resistant black (other colours see page 15)
Flammability rating	UL 94 V-2
Other properties	Halogen free, Silicone free, UV-resistant (black)

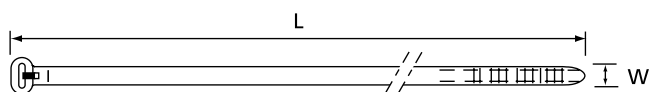


Product Ref.	MIL Spec.	Colour	Length	Width	Thick-ness	Bundle ø from ... to	Min. tensile strenght	Quantity	Tooling
			L [mm]	W [mm]					
TYB23M	MS-3367-4	natural	92	2.3	1.0	1.5 - 22	80	1000	ERG50
TYB23MX	MS-3367-4	UV-resistant black	92	2.3	1.0	1.5 - 22	80	1000	
TYB232M	-	natural	203	2.3	1.0	1.5 - 51	80	1000	
TYB232MX	-	UV-resistant black	203	2.3	1.0	1.5 - 51	80	1000	
TYB24M	MS-3367-5	natural	140	3.6	1.1	2 - 35	178	1000	ERG50
TYB24MX	MS-3367-5	UV-resistant black	140	3.6	1.1	2 - 35	180	1000	
TYB25M	MS-3367-1	natural	186	4.8	1.3	3 - 48	222	1000	ERG120
TYB25MX	MS-3367-1	UV-resistant black	186	4.8	1.3	3 - 48	220	1000	

Description of product reference structure: see page 8

Description of materials and properties: see pages 144 to 155

For tooling specifications: see pages 130 to 143



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