

# All plastic cable ties

## Ty-Fast, Col-Ty™ and Ty-Grip™

ABB offers a complete range of all plastic cable ties to cover the most demanding applications.

### **Ty-Fast all plastic ties**

The all-plastic cable ties are available in lengths from 112mm to 1214mm (4.41" to 47.80") and widths from 2.4mm to 13.2mm (0.09" x 0.52"), offering a loop tensile strength up to 1120 N. Those cable ties will satisfy bundling requirements up to 381mm (15"). Those cable ties are halogen and silicone free Polyamide 6.6 and are available in 12 different colors.

Ty-Fast cable ties meet shipbuilding classification such as Germanischer Lloyd/DNV-GL, Lloyd's Register of Shipping, Bureau Veritas but also Mil Specification and QPL.

Ty-Fast cable ties have a CE declaration, supported by compliance to the low voltage directive and EN/IEC 62275 and UL 62275.

State-of-the-art robotic and raw material handling equipment assures product and material integrity throughout the manufacturing process. The integrally formed Polyamide pawl combines low insertion and high locking strength.

A rounded, low-profile head makes for less snags, tails have improved two-sided finger grip design that helps the operator grasp and pull ties snug. The Sure Grip tab keeps the tail from popping out while being threaded, then holds it securely for final tightening by hand or tool.

### **Heavy duty installation ties**

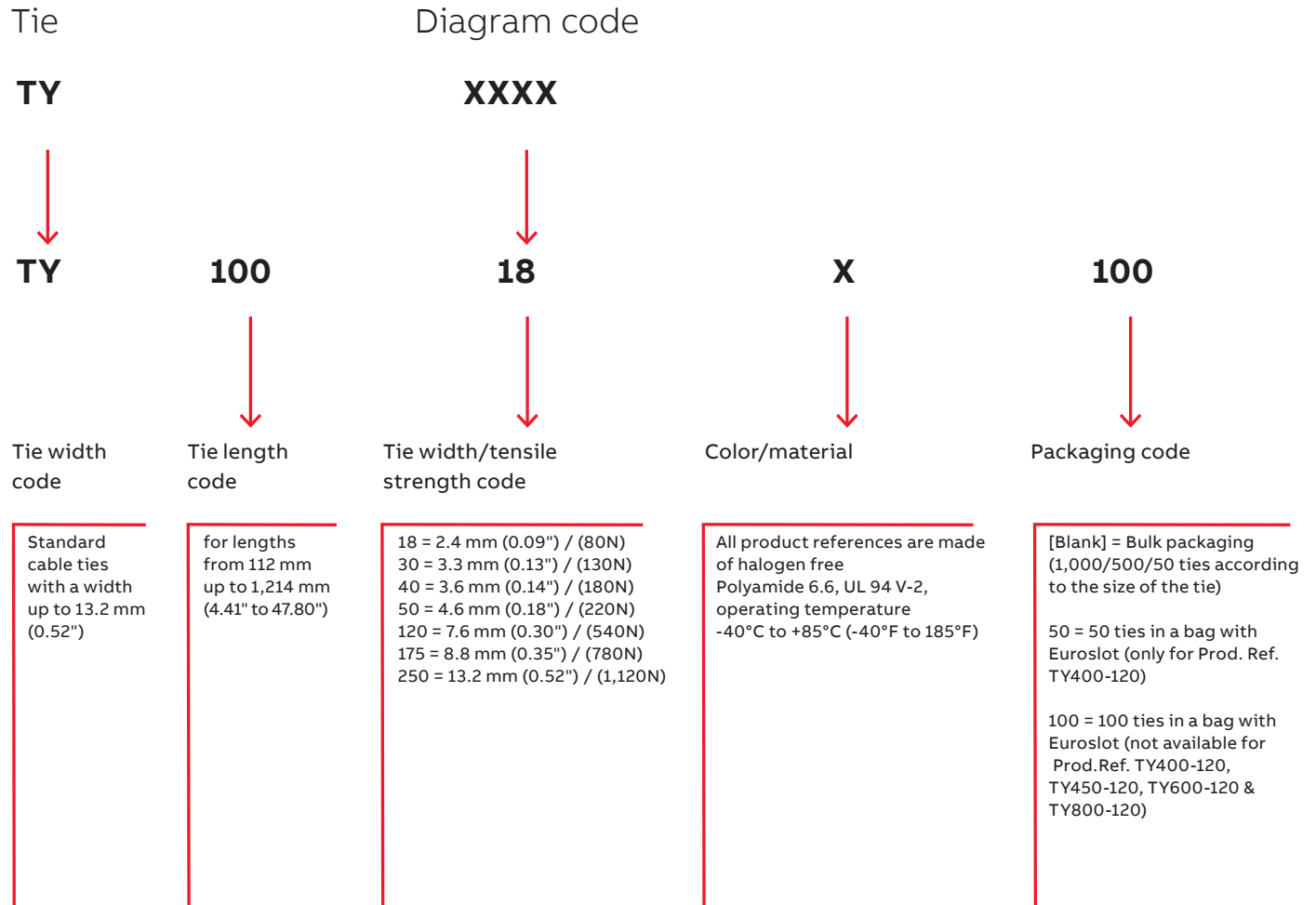
Col-Ty - the heavy installation tie - is mainly used for securing and bundling of cables in the utility and construction industries.

Col-Ty is ideal for hazardous environments, low temperatures and humidity. Col-Ty has a low profile double locking head with serration on the outer side of the tie, which eliminates the risk of damage to the cable.

### **Hook & loop fasteners**

Ty-Grip cable ties are very easy to release and re-use, making them ideal for applications where changes are anticipated or continuous access is required. There is no risk of over-tightening the cables, which makes the Ty-Grip hook & loop fasteners ideal for specific applications in fiber optics, computer network wiring, telecom cables, etc.

## Ty-Fast numbering structure



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.

## All plastic cable ties

### Extra-long cable ties



#### Characteristics

- Extremely long ties (up to 1214mm/47.80")
- Robust construction (778N), for demanding applications where superior tensile strength is required
- The extra long Ty-Fast ties are available in natural color for indoor applications and in UV-resistant black for outdoor applications

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural or UV-resistant black (see table)
- Flammability rating: UL 94 V-2
- Other properties: UV-resistant (black), Halogen free, Silicone free

#### Extra-long cable ties



Cat. no.	Bundle ø from ... to		Color	Length L		Width W		Min. tensile strength [N]	Quantity [pieces]
	[mm]	[in.]		[mm]	[in.]	[mm]	[in.]		
TY600-175X	7 - 187	0.28 - 7.36	UV-resistant black	631	24.84	9.0	0.35	778	50
TY600-175	7 - 187	0.28 - 7.36	Natural	631	24.84	9.0	0.35	778	50
TY900-175X	7 - 263	0.28 - 10.35	UV-resistant black	916	36.06	8.8	0.35	778	50
TY900-175	7 - 263	0.28 - 10.35	Natural	916	36.06	8.8	0.35	778	50
TY1000-175X	7 - 305	0.28 - 12	UV-resistant black	1,041	40.98	8.8	0.35	778	50
TY1000-175	7 - 305	0.28 - 12	Natural	1,041	40.98	8.8	0.35	778	50
TY1200-175	38 - 368	1.50 - 14.49	UV-resistant black	1,233	48.54	8.6	0.34	778	50
TY1200-175	38 - 368	1.50 - 14.49	Natural	1,233	48.54	8.6	0.34	778	50

Some approvals may not be applicable to all Cat. no.s

Contact your Sales Office for approvals limitations

Description of Cat. no. structure: see page C43

Description of materials and properties: see pages C110 to C123

For tooling specifications: see pages C100 to C109

#### Tooling



##### WT3D

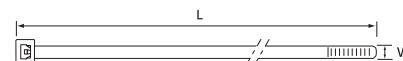
For use with 8.6mm to 9.0mm (778N) Cable ties. See page C100.



##### L-500-EU

For use with 8.6mm to 9.0mm (778N) Cable ties. See page C100.

#### Diagrams



## All plastic cable ties

### Heavy-duty cable ties



#### Characteristics

- Extremely robust ties (1120N), for demanding applications where extreme tensile strength is required
- Available in natural color for indoor applications and in UV-resistant black for outdoor applications

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural or UV-resistant black (see table)
- Flammability rating: UL 94 V-2
- Other properties: UV-resistant (black), Halogen free, Silicone free

#### Heavy-duty cable ties

Cat. no.	Bundle ø from ... to		Color	Length L		Width W		Min. tensile strength [N]	Quantity [pieces]
	[mm]	[in.]		[mm]	[in.]	[mm]	[in.]		
TYL300M	75	2.95	natural	300	11.81	13.2	0.52	1,120	50
TYL300MX	75	2.95	UV-resistant black	300	11.81	13.2	0.52	1,120	50
TYL546M	140	5.51	natural	546	21.50	13.2	0.52	1,120	50
TYL546MX	140	5.51	UV-resistant black	546	21.50	13.2	0.52	1,120	50

Description of Cat. no. structure: see page C43

Description of materials and properties: see pages C110 to C123

For tooling specifications: see pages C100 to C109

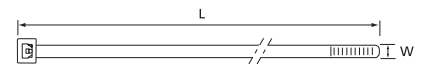
#### Tooling



##### L-500-EU

For use with 8.6mm to 9.0mm (778N) Cable ties. See page C100.

#### Diagrams



## All plastic cable ties

### UL 94 V-0 flame retardant cable ties



#### Characteristics

- Similar to our Ty-Rap range of flame retardant ties, these all-plastic ties are made from low smoke flame retardant Polyamide 6.6 and meet the requirements of UL 94 V-0
- Ideal for use where low flammability and low smoke are necessary such as public transport / buildings, tunnels etc.

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Milky white
- Flammability rating: UL 94 V-0
- Other properties: Limited fire hazard (low smoke), Halogen free, Silicone free

#### UL 94 V-0 flame retardant cable ties

Cat. no.	Bundle ø from ... to		Length L		Width W		Min. tensile strength [N]	Quantity [pieces]
	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]		
TS1025HF	2 - 22	0.08 - 0.87	100	3.94	2.5	0.10	80	100
TS1435HF	2.5 - 33	0.10 - 1.30	140	5.51	3.6	0.14	180	100
TS2045HF	3 - 50	0.12 - 1.97	200	7.84	4.8	0.19	220	100
TS2845HF	5 - 70	0.20 - 2.76	280	11.02	4.8	0.19	220	100
TS3645HF	5 - 102	0.20 - 4.02	370	14.57	4.8	0.19	220	100
TS3675HF	5 - 102	0.20 - 4.02	370	14.57	7.6	0.30	540	100

Description of materials and properties: see pages 110 to 123  
For tooling specifications: see pages 100 to 109

#### Tooling



**ERG50**  
For use with 2.5mm to 4.8mm (80N to 220N) Cable ties.  
See page C100.



**ERG120**  
For use with 7.6mm (540N) Cable ties.  
See page C100.

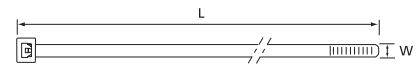


**L-500-EU**  
For use with 7.6mm (540N) Cable ties.  
See page C100.



**WT3D**  
For use with 7.6mm (540N) Cable ties.  
See page C100.

#### Diagrams



## Special all-plastic cable ties

### Integrated mounting hole cable ties



#### Characteristics

- Cable tie can be directly mounted onto a support with screws, bolts or rivets
- Mounting and bundling in one maintenance-friendly assembly
- Cable harness manufacture and pre- and end-mounting of bundles and parts
- UV-resistant version, especially recommended for outdoor applications

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural or UV-resistant black (see table)
- Flammability rating: UL 94 V-2
- Other properties: UV-resistant (black), Halogen free, Silicone free

#### Integrated mounting hole cable ties



E49405

Cat. no.	Bundle ø from ... to		Color	Length L		Width W		Fixing screw size	Min. tensile strength [N]	Quantity [pieces]
	[mm]	[in.]		[mm]	[in.]	[mm]	[in.]			
L-5-30MH-0-C*	2 - 32	0.08 - 1.26	UV-resistant black	152	5.98	3.3	0.13	M4	130	100
L-5-30MH-9-C*	2 - 32	0.08 - 1.26	natural	152	5.98	3.3	0.13	M4	130	100
L-7-50MH-0-C	2 - 44	0.08 - 1.73	UV-resistant black	208	8.23	4.7	0.19	M5	220	100
L-7-50MH-9-C	2 - 44	0.08 - 1.73	natural	208	8.23	4.7	0.19	M5	220	100
L-11-50MH-0-C*	2 - 76	0.08 - 2.99	UV-resistant black	314	12.36	4.7	0.19	M5	220	100
L-11-50MH-9-C*	2 - 76	0.08 - 2.99	natural	314	12.36	4.7	0.19	M5	220	100
L-14-50MH-0-C	2 - 102	0.08 - 4.02	UV-resistant black	382	15.04	4.7	0.19	M5	220	100
L-14-50MH-9-C	2 - 102	0.08 - 4.02	natural	382	15.04	4.7	0.19	M5	220	100
L-14-120MH-0-C*	5 - 102	0.08 - 4.02	UV-resistant black	382	15.04	7.6	0.30	M6	540	100
L-14-120MH-9-C*	5 - 102	0.08 - 4.02	natural	382	15.04	7.6	0.30	M6	540	100

\* Not UL listed

Description of materials and properties: see pages C110 to C123

For tooling specifications: see pages C100 to C109

#### Tooling



##### ERG50

For use with 3.3mm to 4.7mm (130N to 220N) Cable ties.  
See page C100.



##### ERG120

For use with 4.7mm to 7.6mm (220N to 540N) Cable ties.  
See page C100.



##### L-500-EU

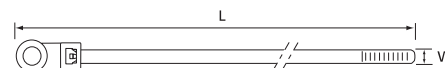
For use with 7.6mm (540N) Cable ties.  
See page C100.



##### WT3D

For use with 7.6mm (540N) Cable ties.  
See page C100.

#### Diagrams



## Special all-plastic cable ties

### Releasable panel mounting cable ties



#### Characteristics

- Fastening and clip-mounting in one
- Fast pre- or on-site-assembly for a range of panel thickness up to 2.7mm (0.11")
- Fast and secure clip-mounting
- For use in 6.35mm (0.25") mounting hole
- Cat. no.s containing xxx-PMR-xxx are releasable

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural or UV-resistant black (see table)
- Flammability rating: UL 94 V-2
- Other properties: UV-resistant (black), Halogen free, Silicone free

#### Releasable panel mounting cable ties



Cat. no.	Bundle ø from ... to		Color	Length L		Width W		Min. tensile strength [N]	Quantity [pieces]
	[mm]	[in.]		[mm]	[in.]	[mm]	[in.]		
<b>Standard panel mounting ties</b>									
L-5-50PM-0-C*	2 - 25	0.08 - 0.98	UV-resistant black	147	5.79	4.8	0.19	220	100
L-5-50PM-9-D*	2 - 25	0.08 - 0.98	natural	147	5.79	4.8	0.19	220	500
L-7-50PM-0-C	2 - 44	0.08 - 1.73	UV-resistant black	208	8.19	4.8	0.19	220	100
L-7-50PM-9-C	2 - 44	0.08 - 1.73	natural	208	8.19	4.8	0.19	220	100
<b>Releasable panel mounting ties</b>									
TB-4-50PMR-9-C-EU*	2 - 22	0.08 - 0.87	natural	110	4.33	4.8	0.19	220	100
L-5-50PMR-0-C*	2 - 25	0.08 - 0.98	UV-resistant black	147	5.79	4.8	0.19	220	100
L-5-50PMR-9-C*	2 - 25	0.08 - 0.98	natural	147	5.79	4.8	0.19	220	100
L-7-50PMR-9-C*	2 - 44	0.08 - 1.73	natural	208	8.19	4.8	0.19	220	100

\* Not UL listed

Description of materials and properties: see pages 110 to 123

For tooling specifications: see pages 100 to 109

#### Tooling



**ERG50**  
For use with 4.8mm  
(220N) Cable ties.  
See page C100.



**ERG120**  
For use with 4.8mm  
(220N) Cable ties.  
See page C100.



**L-500-EU**  
For use with 4.8mm  
(220N) Cable ties.  
See page C100.



**WT3D**  
For use with 4.8mm  
(220N) Cable ties.  
See page C100.

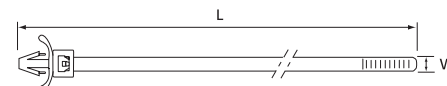


**WT1-TB**  
For use with 4.8mm  
(220N) Cable ties.  
See page C100.



**WT2-TB**  
For use with 4.8mm  
(220N) Cable ties.  
See page C100.

#### Diagrams



## Special all-plastic cable ties

### Releasable cable ties



#### Characteristics

- Easy releasable and re-usable. UV-resistant version, especially recommended for outdoor applications

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural or UV-resistant black (see table)
- Flammability rating: UL 94 V-2
- Other properties: UV-resistant (black), Halogen free, Silicone free

#### Releasable cable ties



Cat. no.	Bundle ø from ... to		Color	Length L		Width W		Min. tensile strength [N]	Quantity [pieces]
	[mm]	[in.]		[mm]	[in.]	[mm]	[in.]		
L-5-50R-0-C*	3 - 32	0.12 - 1.26	UV-resistant black	150	5.91	7.5	0.30	220	100
L-8-50R-0-C*	3 - 51	0.12 - 2.01	UV-resistant black	198	7.80	7.5	0.30	220	100
L-8-50R-9-C*	3 - 51	0.12 - 2.01	natural	198	7.80	7.5	0.30	220	100
L-10-50R-0-C	3 - 76	0.12 - 2.99	UV-resistant black	298	11.73	7.5	0.30	220	100
L-10-50R-9-C	3 - 76	0.12 - 2.99	natural	298	11.73	7.5	0.30	220	100

\* Not UL listed

Description of materials and properties: see pages C110 to C123

For tooling specifications: see pages C100 to C109

#### Tooling



**ERG120**  
For use with 7.5mm  
(220N) Cable ties.  
See page C100.

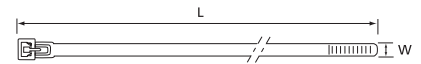


**L-500-EU**  
For use with 7.5mm  
(220N) Cable ties.  
See page C100.



**WT3D**  
For use with 7.5mm  
(220N) Cable ties.  
See page C100.

#### Diagrams





## Special all-plastic cable ties

### Cable ties with identification tag



#### Characteristics

- Identification ties with incorporated label for durable marking and tying
- Simple marking on the roughened writing surface

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural
- Flammability rating: UL 94 V-2
- Other properties: Halogen free, Silicone free

#### Cable ties with identification tag


  
E49405

Cat. no.	Bundle ø max.		Length L		Width W		Label Diagrams	Min. tensile strength [N]	Quantity [pieces]	
	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]				
L-4-18ID-9-C / L-4-18ID-9-M	19	0.75	102	4.02	2.5	0.10	7.9 x 24.7	0.31 x 0.92	80	100 / 1,000
L-7-50ID-9-C / L-7-50ID-9-M	44	1.73	200	7.87	4.7	0.19	30 x 13.3	1.18 x 0.52	220	100 / 1,000

Description of materials and properties: see pages C110 to C123  
For tooling specifications: see pages C100 to C109

#### Tooling



**ERG50**  
For use with 2.5mm to 4.7mm (80N to 220N) Cable ties.  
See page C100.

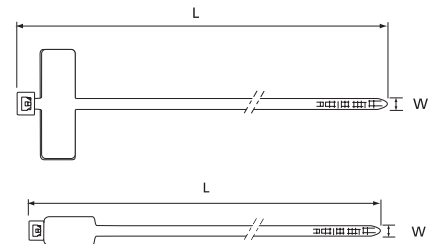


**ERG120**  
For use with 4.7mm (220N) Cable ties.  
See page C100.



**L-500-EU**  
For use with 4.7mm (220N) Cable ties.  
See page C100.

#### Diagrams



## Special all-plastic cable ties

### Special double-headed ties



#### Characteristics

- The double-headed ties allow the parallel routing of two bundles of cable with one single tie
- Available in 3 different lengths

#### Technical information

- Material: Polyamide 6.6
- Temperature range: -40°C to +85°C (-40°F to 185°F)
- Color: Natural
- Flammability rating: UL 94 V-2
- Other properties: Halogen free, Silicone free

#### Special double-headed ties

Cat. no.	Bundle diameter				Length L		Width W		Min. tensile strength [N]	Quantity [pieces]
	Loop 1 from ... to		Loop 2 from ... to							
	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]		
TB-50RLDH	2.5 - 47	0.10 - 1.86	2.0 - 45	0.08 - 1.77	200	7.87	4.8	0.19	220	1,000
TB-12-50RLDH	2.5 - 72	0.10 - 2.83	2.0 - 70	0.08 - 2.76	300	11.81	4.8	0.19	220	1,000
TB-15-50RLDH	2.5 - 100	0.10 - 3.94	2.0 - 97	0.08 - 3.82	370	14.57	4.8	0.19	220	1,000

Description of materials and properties: see pages C110 to C123

For tooling specifications: see pages C100 to C109

#### Tooling



**ERG50**  
For use with 4.8mm (220N) Cable ties.  
See page C100.

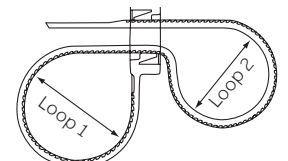
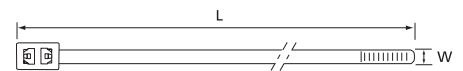


**ERG120**  
For use with 4.8mm (220N) Cable ties.  
See page C100.



**L-500-EU**  
For use with 4.8mm (220N) Cable ties.  
See page C100.

#### Diagrams



## Special cable ties

### Ty-Grip hook & loop fasteners



FO series loop ties are ideal for wrapping pre-determined bundle diameters thanks to the convenient slotted head.



FOL series buckle ties provide added strength and stability thanks to the high performance polyamide buckle.

#### Characteristics

These handy ties are very easy to release and re-use, making them ideal for applications where changes are anticipated or continuous access is required.

- Quick bundling and re-adjustable tension
- No risk of over-tightening the cables, which makes the Ty-Grip Hook & Loop fasteners ideal for specific applications in fibre optics, computer network wiring, telecom cables, etc.
- Multiple colors available for identifying specific bundles
- Different sizes available to accommodate varying bundle diameters
- Screw-mount and self-adhesive mounting bases provide multiple mounting options

#### Technical information FO Series

- Material hook side: Polyamide
- Material loop side: Low density Polyethylene
- Temperature range: -20°C to +104°C (-4°F to 219.2°F)
- Color: Standard color: black
- Flammability rating: UL 94 HB\*
- Peel-off strength: 0.8N/cm

#### Technical information FOL Series

- Material hook side: Polyamide
- Temperature range: -20°C to +93°C (-4°F to 199.4°F)
- Color: Standard color: black - see note after table
- Flammability rating: UL 94 HB
- Peel-off strength: 0.8N/cm

#### Ty-Grip hook & loop fasteners

Cat. no.	Maximum bundle diameter		Length L		Width W		Tensile strength [N]	Quantity [pieces]
	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]		
<b>FO Series loop ties</b>								
FO200-40-0	50.8	2	228.6	9	12.7	0.5	180	10
FO200-50-0	50.8	2	228.6	9	19.1	0.75	220	10
FO350-40-0	88.9	3.5	330.2	13	12.7	0.5	180	10
FO350-50-0	88.9	3.5	330.2	13	19.1	0.75	220	10
FO350-50-0-FR*	88.9	3.5	330.2	13	19.1	0.75	220	10
<b>FOL Series buckle ties</b>								
FOL300-50-0	76.2	3	304.8	12	19.1	0.75	220	10
FOL500-50-0	127.0	5	457.2	10.13	19.1	0.75	220	10

Replace "-0" in the Cat. no. by the corresponding color code

\* Suffix FR is Flame Retardant version

## Special cable ties

### Ty-Grip hook & loop fasteners



FOS series strip ties are pre-cut which makes bundling easy.



FOR series rolled hook and loop allows customers to conveniently cut pieces to desired lengths, eliminating waste.

#### Characteristics

These handy ties are very easy to release and re-use, making them ideal for applications where changes are anticipated or continuous access is required.

- Quick bundling and re-adjustable tension
- No risk of over-tightening the cables, which makes the Ty-Grip Hook & Loop fasteners ideal for specific applications in fibre optics, computer network wiring, telecom cables, etc.
- Multiple colors available for identifying specific bundles
- Different sizes available to accommodate varying bundle diameters
- Screw-mount and self-adhesive mounting bases provide multiple mounting options

#### Technical information FOS and FOR Series

- Material hook side: Polyamide
- Material loop side: Low density Polyethylene
- Temperature range: -20°C to +104°C (-4°F to 219.2°F)
- Color: Standard color: black\*
- Flammability rating: UL 94 HB
- Peel-off strength: 0.8N/cm

#### Ty-Grip hook & loop fasteners

Cat. no.	Maximum bundle diameter		Length L		Width W		Tensile strength [N]	Quantity [pieces]
	[mm]	[in.]	[mm]	[in.]	[mm]	[in.]		
<b>FOS Series strip ties</b>								
FOS150-50-0	38.1	1.5	152.4	6	19.1	0.75	220	10
FOS320-50-0	81.3	3.20	304.8	12	19.1	0.75	220	10
FOS500-50-0	127.0	5	457.2	18	19.1	0.75	220	10
<b>FOR Series rolled strip</b>								
FOR180-50-0	Various		4572.0	180	19.1	0.75	220	1
FOR180-50-0-FR**	Various		4572.0	180	19.1	0.75	220	1

\* Standard color: black

Replace "-0" in the Cat. no. by the corresponding color

\*\* FOR180-50-0-FR is made of flame retardant material

Contact your Sales Office for Product Availability in the other colors