

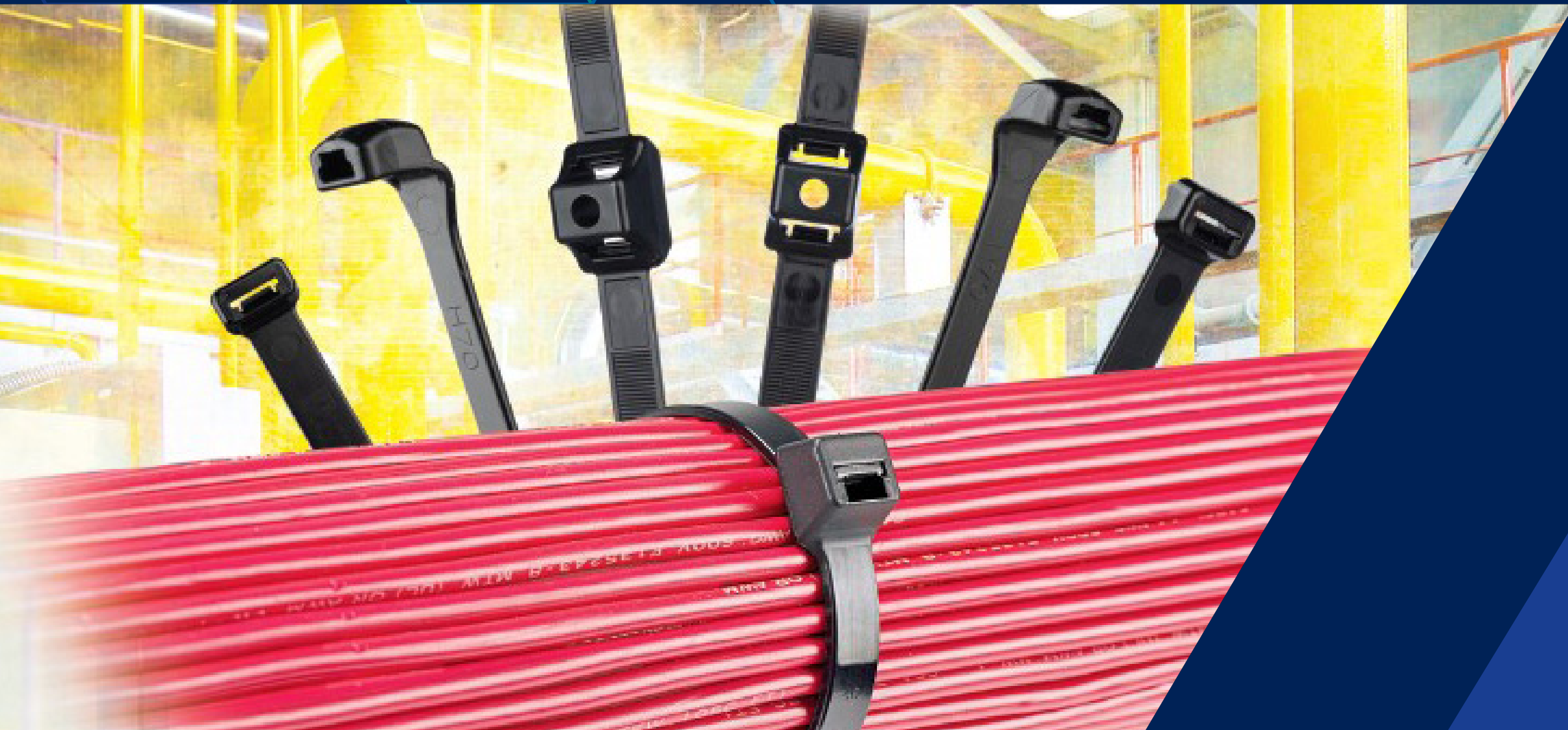


프리미엄 케이블타이 선정 가이드

Panduit Premium Cable Ties Selection Guide · English Edition

Global Industrial Cable Management Solutions · Authorized Distributor

Premium Cable Ties



PANDUIT®

Selection Guide

Comprehensive Cable Tie Solutions

Panduit offers a broad selection of industry approved styles, sizes, and materials to meet a full range of electrical, industrial, and networking applications.

- PLT

Premium Locking Cable Ties
Most comprehensive product offering
- SG

Vibration-resistant Cable Ties
Withstand rough installations
- BT

Dome-Top® Barb Ty Cable Ties
Metal locking barb; infinite adjustability
- DT

Dura-Ty® Cable Ties
Acetal material; 20+ years outdoor service life
- CBR

Contoured Cable Ties
Low profile head, parallel-entry, outside teeth
- HV

In-Line Cable Ties
Teeth on both sides; 2-wedge locking design
- SST

Through-panel Cable Mounting Cable Ties
Two-piece design, low thread force, lightweight
- ERT

Elastomeric Cable Ties
Flexible, elastic material, UL 94V-0, releasable
- PLWS

Wide Strap Cable Ties
Wide, thin flexible body, high heat
- PLDC

Double Clamp Cable Ties
Secures and separates parallel hoses, tubing and wire bundles

											
Product Family		PLT	SG	BT	DT	CBR	HV	SST	ERT	PLWS	PLDC
Styles	Locking	✓	✓	✓	✓	✓	✓	✓		✓	✓
	Releasable	✓							✓		
	Marker	✓		✓				✓			
	Clamp	✓		✓				✓			✓
	Push Mount	✓		✓							
	Specialty	✓		✓				✓			
Cross Sections	Miniature (M)	✓	✓	✓		✓		✓			
	Intermediate (I)	✓	✓	✓		✓		✓			
	Standard (S)	✓	✓	✓		✓		✓			
	Heavy-Standard (HS)					✓					
	Light-Heavy (LH)	✓	✓			✓	✓				
	Heavy (H)	✓			✓			✓			
	Extra-Heavy (EH)	✓			✓						
	Extra-Heavy (thin) (EH)									✓	✓

Cable Tie Industry Approvals

Agency	Spec/Approval	Requirement	Products
UL (Underwriters Laboratory)	UL 62275 (File E56854); UL 2809	Types 1, 11, 2, 2S, 21, 21S (Note 1)	Select PLT, BT, SG, SST, and CBR Series
CSA (Canadian Standards Association)	CSA-C22.2 No. 62275 (File 31212)	Types 1, 11, 2, 2S, 21, 21S (Note 1)	Select PLT, BT, SG, SST, and CBR Series
ABS (American Bureau of Shipping)	05-HS463235-PDA	2005 Steel Vessel Rules 1-1-4/7.7, 4-8-4/21.9.32001 MODU Rules 4-3-3/5.9.1	PLT and BT Series
Bureau Veritas	Cert 05968/C0, BV File ACE 14/601/01 Product Code: 2535H	Bureau Veritas Rules for the Classification of Steel Ships	PLT, PRT, BT and CBR Series
Det Norske Veritas	E-6405	Det Norske Veritas' Rules for Classification of Ships and Mobile Offshore Units	PLT, PLC, PLM, PRT, PLWP, PRWP and PRST Series
Lloyd's Register of Shipping	89/60111 (E3)	Lloyd's Register Type Approval	PLT, PLC, PLP, PLWP, PLM, PRT, SST, SSC, SSM, BT, BC, BM, BF, B2M, B3M, BM, BW, BP, ILT and CBR Series
US Military Aerospace Standard	QPL-AS23190	SAE spec AS23190	Select PLT, BT, SST, and CBR Series

Material Selection Criteria

		Material	Test Method	Nylon 6.6	Weather Resistant Nylon 6.6	Impact Modified Weather Resistant Nylon 6.6	Heat Stabilized Nylon 6.6	Heat Stabilized Nylon 6.6	Heat Stabilized Weather Resistant Nylon 6.6	Impact Modified Heat Stabilized Weather Resistant Nylon 6.6	Impact Modified, Weather Resistant PIR*** Recycled Nylon 6.6	Flame Retardant Nylon 6.6	Weather Resistant Nylon 6.12	Polypropylene	Weather Resistant Polypropylene	TEFZELn	HALARs	PEEK	Antimicrobial Metal Detectable Nylon	Metal Detectable Polypropylene	DT Weather Resistant Acetal	ERT Flame Retardant TPU									
		Color	–	Natural	Black	Black	Black	Natural	Black	Black	Black	Black	Natural Ivory	Black	Green	Black	Aqua Blue	Maroon	Translucent Brown	Blue	Dark Blue	Black	Black								
		Part Number Suffix (Material Designation)	–	No Suffix	0	0	30	39	300	350	360	60	69	6120	109	100	76	702Y	71	96A	186	N/A	20								
Mechanical Properties	Tensile @ Yield @ 73°F (psi)	ISO 527 4°F (-20°C)	12,000			9,700	12,000			8,700	8,412	11,000		9,300	4,100		7,500	7,000	15,200	–	–	6,500	4,300								
	Water Absorption (24 Hours)	ASTM D570	1.2%										1.1%		0.4%	0.1%	0.1%	<0.03%	<0.05%	0.5%	1.2%	0.1%	<0.45%	0.25%							
	Radiation Resistance (Rads)	–	1 x 10 ⁵											–	1 x 10 ⁶		2 x 10 ⁸	2 x 10 ⁸	1 x 10 ⁹	–	1 x 10 ⁶	6 x 10 ⁵	–								
	Weathering Life Expectancy (Years)/UV Resistance**	–	1 – 2	7 – 9			4 – 5	1 – 2	7 – 9			10	1 – 2		20	1	7 – 9	>15		–	–	1	>20	7 – 9							
Chemical Resistance	Impact Resistance	–	○	○	●	○	○	○	○	●	●	●	○	●	●	●	●	●	●	○	●	●	●								
	Salts	–	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	●								
	Hydrocarbons (Oil, Lubricants)	–	●	●	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	○	●	○								
	Chlorinated Hydrocarbons	–	●	●	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	○	●	●								
	Acids	–	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	●	●	●								
	Bases	–	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
Thermal Properties	Acid Rain	–	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
	Continuous Use Temperature Range	UL 746B	-76°F – 185°F (-60°C – 85°C)				-76°F – 239°F (-60°C – 115°C)					-76°F – 212°F (-60°C – 100°C)		-76°F – 194°F (-60°C – 90°C)		-76°F – 239°F (-60°C – 115°C)		-76°F – 338°F (-60°C – 170°C)		-76°F – 257°F (-60°C – 125°C)		-76°F – 464°F (-60°C – 240°C)		-40°F – 185°F (-40°C – 85°C)		-40°F – 239°F (-40°C – 115°C)		76°F – 185°F (-60°C – 85°C)		-40°F – 122°F (-40°C – 50°C)	
	Minimum Installation Temperature	UL 62275	-4°F (-20°C) or 32°F (0°C) Note 1									-4°F (-20°C)		-4°F (-20°C) or 32°F (0°C) Note 1		32°F (0°C)		-4°F (-20°C) or 32°F (0°C) Note 1													
	Flammability Rating	UL 94	V-2						HB				V-0		HB			V-0		V-2		HB			V-0						
	Low Smoke	ASTM E662	PASS										–		–	–	–	–	PASS	–	–	PASS		–							
	Oxygen Index	BS ISO 4589	28		–		28			22		–		34		–		–	–	30	52	35	–	–	–	26					
	Halogen-Free	IEC 61249-2-21	Yes											No					Yes												
	Burning Fume Toxicity	BSS-7239	PASS											–		–	–	–	–	–	–	–	–	–	–	–					
Material Availability	Heat Deflection Temperature @ 1.8 Mpa	ASTM D648 ISO 75 -1/-2	158°F (70°C)		145°F (63°C)		158°F (70°C)			145°F (63°C)		151°F (66°C)		149°F (65°C)		158°F (70°C)		122°F (50°C)		–		149°F (65°C)		313°F (156°C)		–		147°F (64°C)		–	
	RELATIVE PRICE	–	Low					Low-Med										High					Low		Med		High				
	Product Family/Cross Section Widths																														
	Premium Locking Cable Ties	PLT	–	All Widths	SM, M, I, S	LH, H, EH	All Widths			–		All Widths				All Widths (except for SM and EH)		All Widths										–		–	
	Vibration-Resistant Cable Ties	SG	–	All Widths	M, I, S, LH	H	All Widths	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Dome-Top® Barb Ty Cable Ties	BT	–	All Widths	M, I, S	LH	All Widths			–		–	–	M, I, S, LH	S & LH	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Dura-Ty™ Cable Ties	DT	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	EH	–	–		
	Contoured Cable Ties	CBR	–	All Widths	M, I, S, HS, LH	–	All Widths			–		–	–	S	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Hyper-V™ In-Line Cable Ties	HV	–	–	–	LH				–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Through-Panel Cable Mounting Cable Ties	SST	–	All Widths	M, I, S, H	–	All Widths			–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Elastomeric Cable Ties	ERT	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	M		
	Double Clamp Cable Ties	PLDC	–	–	–	–	–	–	–	–	EH		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Wide Strap Cable Ties	PLWS	–	–	–	–	–	–	–	–	EH		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			



For more information on the products listed in this guide scan here.

Recommendation Legend				
Highest	High	Acceptable	Low	Lowest
●	●	○	●	●

Cross Sections: SM = Subminiature, M = Miniature, I = Intermediate, S = Standard, HS = Heavy-Standard, LH = Light-Heavy, H = Heavy, EH = Extra-Heavy
Note 1: Check UL file for specific part number rating
*TEFZEL is a registered trademark of The Chemours Company
*HALAR is a registered trademark of Solvay Specialty, a Division of Syvensqo
**Weather Life Expectancy is an estimated life expectancy and not a guarantee of life expectancy
*** PIR: Post-Industrial Recycled

Cable Tie Installation Tools

Our hand-operated tools are among the most preferred in the industry, suitable for production, maintenance, or construction applications. These versatile tools promote worker safety, help reduce downtime, and improve productivity for improved installation cost and efficiency. Quality in design and production.

Cable Tie Tools

- GTS-E**
- Used with SM, M, I, and S cable ties
 - Ergonomic design lowers the risk of repetitive motion injuries with the lowest activation and impact force to the installer



- GS2B-E**
- Used with SM, M, I, and S cable ties
 - Metal tool with durable powder coat finish
 - Ergonomic design lowers the risk of repetitive motion injuries through improved activation and force impact to the installer



- GTH-E**
- Used with S, HS, LH, and H cable ties
 - Ergonomic design lowers the risk of repetitive motion injuries through improved activation and force impact to the installer



- GS4H-E**
- Used with S, HS, LH, and H cable ties
 - Metal tool with a durable powder coat finish
 - Ergonomic design lowers the risk of repetitive motion injuries through improved activation and force impact to the installer



- GS4EH-E**
- Used with LH, H, and EH cable ties
 - Metal tool with a durable powder coat finish
 - Ergonomic design lowers the risk of repetitive motion injuries through improved activation and force impact to the installer



Pneumatic Hand Tools

- PTS**
- Used with SM, M, I, and S cable ties
 - Ergonomic design with impact resistant resin housing
 - Replacement parts can be part of a scheduled maintenance program



- PTH**
- Used with S, HS, LH, and H cable ties
 - Ergonomic design with impact resistant resin housing
 - Replacement parts can be part of a scheduled maintenance program



Complete Your Bundling System

Tools

Manual Cable Tie Installation Tools

- Optimized installation efficiency and reliability
- Flush tie cut-off limits exposure to sharp edges
- Full line of lightweight, ergonomic hand tools models to fit all cable tie cross sections
- Designed for reliability and performance



Automatic Cable Tie Installation Systems

- An efficient solution for high volume harnessing, assembly, fastening and packaging applications
- High-speed tools lower installed cost and reduce operator fatigue
- Wrap, tension, and cut cable ties in less than one second
- Microprocessor based controller monitors system performance for production data and reporting



Related Products

Cable Accessories

- Comprehensive line of mounts, clips, and clamps that organizes and routes cables, speeds and simplifies installations, and lowers overall installed cost
- Installation methods include adhesive backed, user applied adhesive, screws, rivets and push barb
- Accessories provide long-term reliability while cable clips and clamps offer a one-piece solution to save time and reduce inventory designed for reliability and performance



Stainless Steel Cable Ties

- Durable method of bundling, fastening and permanent identification under severe environmental conditions
- Engineered for safety, productivity, and durability by providing round edges and smooth surfaces, easy threading, high loop tensile strength and tight clamping



Making the connections that matter.

We have the knowledge
and experience to help you
make the most of your
infrastructure investment.

panduit.com



Let's connect
panduit.com/contact-us

PANDUIT®
infrastructure for a connected world