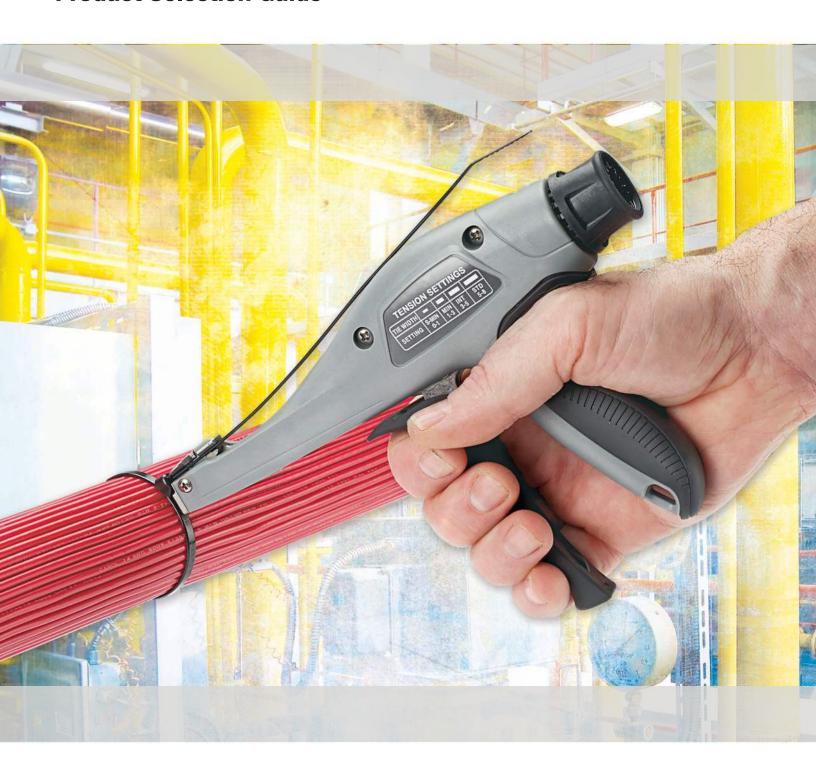


# **Cable Ties Product Selection Guide**



# **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 Pan-Ty® Cable Ties

Most comprehensive product offering

SG Super-Grip® 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 Contour-Ty® Cable Ties** 

Low profile head, parallel-entry, outside teeth

HV Hyper-V<sup>™</sup> Cable Ties

Teeth on both sides; 2-wedge locking design

SST Sta-Strap® Cable Ties

Two-piece design, low thread force, lightweight

**ERT Elastomeric Cable Ties** 

Flexible, elastic material, UL 94V-0, releasable

			NZ1	No.			III Page		
	Product Family	PLT	SG	BT	DT	CBR	HV	SST	ERT
	Locking	✓	✓	✓	✓	✓	✓	✓	
	Releasable	✓							✓
les l	Marker	<b>✓</b>		✓				✓	
Styles	Clamp	✓		✓				✓	
	Push Mount	✓		✓					
	Specialty	✓		✓				✓	
(0	Miniature	✓	✓	✓		✓		✓	✓
Sections	Intermediate	✓	✓	✓		✓		✓	
∺	Standard	✓	✓	✓		✓		✓	
Se	Heavy-Standard					✓			
Cross	Light-Heavy	✓	✓	✓		✓	✓		
	Heavy	✓	✓		✓			✓	
٦	Extra-Heavy	✓			✓				

### **Cable Tie Industry Approvals**

Agency Spec/Approval		Requirement	Products					
UL (Underwriters Laboratory	UL 62275 (File E56854)	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					
Russian Maritime Register of Shipping	11130200	Russian Maritime Type Approval Certificate	PLT, PLC, PLM, PLF, SG, BT, BF, BM, BC, DT and CBR Series					
NRC (Nuclear Regulatory Commission)	NRC 10CFR50	Quality Assurance Criteria for Nuclear	All cable tie products					
US Military Aerospace Standard	QPL-AS23190	SAE spec AS23190	Select PLT, BT, SST, and CBR Series					

# **Material Selection Criteria**

	Material	Test	Noden 6.6	Weather Resistant	Impact Modified Weather Resistant	Heat Stabilized	Heat Stabilized	Heat Stabilized Weather Resistant	Flame Retardant
	Material Color	Method –	Nylon 6.6  Natural (other colors available)	Nylon 6.6 Black	Nylon 6.6 Black	Nylon 6.6 Black	Nylon 6.6 Natural	Nylon 6.6 Black	Nylon 6.6 Black
	Part Number Suffix (Material Designation)	_	No Suffix	0	0	30	39	300	60
	Tensile @ Yield @ 73°F (psi)	ISO 527	12,000	12,000	9,700	12,000	12,000	12,000	11,000
nical	Water Absorption (24 Hours)	ASTM D570	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%
Mechani	Radiation Resistance (Rads)	-	1 x 10 <sup>5</sup>	1 x 10⁵	1 x 10⁵	1 x 10⁵	1 x 10⁵	1 x 10⁵	1 x 10 <sup>5</sup>
₽Ğ	(Years)/UV Resistance	_	1 – 2	7 – 9	7 – 9	4 – 5	1 – 2	7 – 9	1 – 2
	Impact Resistance	_	0	0	<u>-</u>	0	0		
	Salts	_							
Chemical Resistance	Hydrocarbons (Oil, Lubricants)	_	•	•	•	•	•	•	•
emi	Chlorinated Hydrocarbons	_							
Sch	Acids	_							
	Bases	_	<b>=</b>				<b>-</b>		
	Acid Rain	_		9					
	Continuous Use Temperature Range	UL 746B	-76°F – 185°F -60°C – 85°C	-76°F – 185°F -60°C – 85°C	-76°F – 185°F -60°C – 85°C	-76°F – 239°F -60°C – 115°C	-76°F – 239°F -60°C – 115°C	-76°F – 239°F -60°C – 115°C	-76°F – 212°F -60°C – 100°C
Properties	Minimum Installation Temperature	UL 62275	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)
obel	Flammability Rating	UL 94	V-2	V-2	НВ	V-2	V-2	V-2	V-0
al Pr	Low Smoke	ASTM E662	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Thermal	Oxygen Index	BS ISO 4589	28	28	_	28	28	28	34
F	Halogen-Free	IEC 60754-2	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Burning Fume Toxicity	BSS-7239	PASS	PASS	PASS	PASS	PASS	PASS	PASS
	Heat Deflection Temperature @ 1.8 Mpa	ASTM D648 ISO 75 -1/-2	158°F 70°C	158°F 70°C	145°F 63°C	158°F 70°C	158°F 70°C	158°F 70°C	154°F 68°C
	Relative Price	_	Low	Low	Low	Low	Low	Med	Med
	Product Family			Cross S	ections				
	Pan-Ty® Cable Ties PLT		3	SM, M, I, S	LH, H, EH	3	3	3	3
ility	Super-Grip® Cable Ties SG		3	M, I, S, LH	Н	3			
	Dome-Top® Barb Ty Cable TiesBT		3	M, I, S	LH	3	3	3	
Availab	Dura-Ty™ Cable Ties DT								
Material	Contour-Ty® Cable Ties CBR		3	M, I, S, HS, LH		3	3		
Mat	Hyper-V <sup>™</sup> Cable Ties HV				LH				
	Sta-Strap® Cable Ties SST		3	M, I, S, H		3			
	Elastomeric Cable Ties ERT								

	Reco	mmendation	Legend				
Highest High Acceptable Low L							
	•	0	-				

Check mark indicates material availability in that product family for all cross sections.

Cross Sections: SM = Subminiature, M = Miniature, I = Intermediate, S = Standard, HS = Heavy-Standard, LH = Light-Heavy, H = Heavy, EH = Extra-Heavy



## infrastructure for a connected world

Flame Retardant Nylon 6.6	Weather Resistant Nylon 12	Polypropylene	Weather Resistant Polypropylene	TEFZEL <sup>1</sup>	HALAR	PEEK	Metal Detectable Nylon	Metal Detectable Polypropylene		Flame Retardant TPU
Natural Ivory	Black	Green	Black	Aqua Blue	Maroon	Translucent Brown	Lt. Blue	Dark Blue	Black	Black
69	120	109	100	76	702Y	71	86	186	N/A	20
11,000	6,700	4,100	4,100	7,500	7,000	15,200	_	_	6,500	4,300
1.1%	0.3%	0.1%	0.1%	<0.03%	<0.05%	0.5%	1.2%	0.1%	<0.45%	0.25%
1 x 10⁵	3.5 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	1 x 10°	_	1 x 10 <sup>6</sup>	6 x 10⁵	-
1 – 2	12 – 15	1	7 – 9	>15	>15	-	_	1	>20	7 – 9
							0			
0									0	
	•	0	0			•	•	0	•	
<b>-</b>	<b>-</b>					•				
						0				
	-	•				•				
	<b>-</b>	•				<b>=</b>				
-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 – 239°F -60°C – 115°C	-76°F – 338°F -60°C – 170°C		-76°F – 500°F -60°C – 260°C (Note 2)	-76°F – 185°F -60°C – 85°C	-76°F – 239°F -60°C – 115°C	76°F – 185°F -60°C – 85°C	-40°F – 122°F -40°C – 50°C
-4°F or +32°F -20°C or 0°C (Note 1)		-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)	-4°F or +32°F -20°C or 0°C (Note 1)				
V-0	НВ	НВ	НВ	V-0	V-0	V-0	HB	НВ	HB	V-0
PASS	_	-	_	_	-	PASS	-	-	PASS	_
34	_	_	_	30	52	35	_	_	_	26
Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
PASS	_	_	_	_	_	_	_	_	_	_
154°F 68°C	122°F 50°C	122°F 50°C	122°F 50°C	1	149°F 65°C	313°F 156°C	_	_	147°F 64°C	_
Med	Med	Med	Med	High	High	High	Low	Med	Med	High
3	3	3	3	3	3	3	3	3		
- U					0					
3										
									3	
3										
										3

Note 1: Check UL file for specific part number rating Note 2: Based upon UL RTI for electrical properties

<sup>&</sup>quot;TEFZEL is a registered trademark of E.I. du Pont de Nemours and Company.

<sup>&</sup>lt;sup>s</sup>HALAR is a registered trademark of Ausimont USA, Inc.

## **Cable Tie Installation Tools**

Panduit offers the most preferred hand-operated tools in the industry. These versatile tools can be used for production, maintenance or construction applications. Panduit cable tie installation tools promote worker safety, help reduce downtime, improve productivity and provide the lowest total installed cost. As with all Panduit products, quality in design and production along with customer service excellence, are assured.

#### **Cable Tie Tools**



GTS-E

- Used with SM, M, I, and S cable ties
- Ergonomic design lowers the risk of repetitive motion injuries. Lowest activation and impact force to installer's hand



GS2B-E

- Used with SM, M, I, and S cable ties
- Metal tool with a durable powder coat finish
- Ergonomic design lowers the risk of repetitive motion injuries. Lowest activation and impact force to installer's hand



**GTH-E** 

- Used with S, HS, LH, and H cable ties
- Ergonomic design lowers the risk of repetitive motion injuries. Lowest activation and impact force to installer's hand



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. Lowest activation and impact force to installer's hand



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. Lowest activation and impact force to installer's hand





PTS

- Used with SM, M, I, and S cable ties
- Ergonomic design with impact resistant resin housing and black knob; 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 and red knob; replacement parts can be part of a scheduled maintenance program



**Pneumatic Tool Accessories** 

 Visit www.panduit.com for our complete line of pneumatic tool accessories

# **Complete Your Bundling System**

#### **Tools**



#### **Manual Cable Tie Installation Tools**

- Designed to speed installation for lower installed cost
- Flush tie cut-off limits exposure to sharp edges
- A full line of lightweight, ergonomic hand tools available
- Panduit leads the industry in 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 off cable ties in less than one second
- Microprocessor based controller monitors system performance for production data and reporting

#### **Services**



#### **Custom Imprinting Service**

- Products available for custom imprinting include cable ties, marker plates, marker and flag ties, hook and loop wrap ties
- Results in a professional, high quality appearance for identification and labeling as well as promotional purposes
- Options include company logos, website addresses, sequential numbering, phone numbers, graphics and text

## **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



#### **Stainless Steel Cable Ties**

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

