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# 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™ 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



|                       | Product Family | PLT | SG | BT | DT | CBR | HV | SST | ERT |
|-----------------------|----------------|-----|----|----|----|-----|----|-----|-----|
| <b>Styles</b>         | Locking        | ✓   | ✓  | ✓  | ✓  | ✓   | ✓  | ✓   |     |
|                       | Releasable     | ✓   |    |    |    |     |    |     | ✓   |
|                       | Marker         | ✓   |    | ✓  |    |     |    | ✓   |     |
|                       | Clamp          | ✓   |    | ✓  |    |     |    | ✓   |     |
|                       | Push Mount     | ✓   |    | ✓  |    |     |    |     |     |
|                       | Specialty      | ✓   |    | ✓  |    |     |    | ✓   |     |
| <b>Cross Sections</b> | Miniature      | ✓   | ✓  | ✓  |    | ✓   |    | ✓   | ✓   |
|                       | Intermediate   | ✓   | ✓  | ✓  |    | ✓   |    | ✓   |     |
|                       | Standard       | ✓   | ✓  | ✓  |    | ✓   |    | ✓   |     |
|                       | Heavy-Standard |     |    |    |    | ✓   |    |     |     |
|                       | Light-Heavy    | ✓   | ✓  | ✓  |    | ✓   | ✓  |     |     |
|                       | Heavy          | ✓   | ✓  |    |    |     |    | ✓   |     |
|                       | 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<br>1-1-4/7.7, 4-8-4/21.9.32001<br>MODU Rules 4-3-3/5.9.1 | PLT and BT Series  |
| Bureau Veritas                        | Cert 05968/C0, BV File<br>ACE 14/601/01 Product Code:<br>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 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 | Flame Retardant Nylon 6.6                 |
|---|---------------------------|---|---|---|---|---|---|---|
| <b>Color</b>  | —                         | Natural (other colors available)          | Black                                     | Black                                       | Black                                     | Natural                                   | Black                                       | Black                                     |
| <b>Part Number Suffix (Material Designation)</b>        | —                         | No Suffix                                 | 0   | 0   | 30  | 39  | 300   | 60  |
| <b>Mechanical Properties</b>                            |                           |   |   |   |   |   |   |   |
| <b>Tensile @ Yield @ 73°F (psi)</b>                     | ISO 527                   | 12,000                                    | 12,000                                    | 9,700                                       | 12,000                                    | 12,000                                    | 12,000                                      | 11,000                                    |
| <b>Water Absorption (24 Hours)</b>                      | ASTM D570                 | 1.2%                                      | 1.2%                                      | 1.2%  | 1.2%                                      | 1.2%                                      | 1.2%  | 1.1%                                      |
| <b>Radiation Resistance (Rads)</b>                      | —                         | 1 x 10 <sup>5</sup>                       | 1 x 10 <sup>5</sup>                       | 1 x 10 <sup>5</sup>                         | 1 x 10 <sup>5</sup>                       | 1 x 10 <sup>5</sup>                       | 1 x 10 <sup>5</sup>                         | 1 x 10 <sup>5</sup>                       |
| <b>Weathering Life Expectancy (Years)/UV Resistance</b> | —                         | 1 – 2                                     | 7 – 9                                     | 7 – 9                                       | 4 – 5                                     | 1 – 2                                     | 7 – 9                                       | 1 – 2                                     |
| <b>Impact Resistance</b>                                | —                         | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   |
| <b>Chemical Resistance</b>                              |                           |   |   |   |   |   |   |   |
| <b>Salts</b>  | —                         | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   |
| <b>Hydrocarbons (Oil, Lubricants)</b>                   | —                         | ●   | ●   | ●   | ●   | ●   | ●   | ●   |
| <b>Chlorinated Hydrocarbons</b>                         | —                         | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   |
| <b>Acids</b>  | —                         | ●   | ●   | ●   | ●   | ●   | ●   | ●   |
| <b>Bases</b>  | —                         | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   |
| <b>Acid Rain</b>  | —                         | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   | ☐   |
| <b>Thermal Properties</b>                               |                           |   |   |   |   |   |   |   |
| <b>Continuous Use Temperature Range</b>                 | UL 746B                   | -76°F – 185°F<br>-60°C – 85°C             | -76°F – 185°F<br>-60°C – 85°C             | -76°F – 185°F<br>-60°C – 85°C               | -76°F – 239°F<br>-60°C – 115°C            | -76°F – 239°F<br>-60°C – 115°C            | -76°F – 239°F<br>-60°C – 115°C              | -76°F – 212°F<br>-60°C – 100°C            |
| <b>Minimum Installation Temperature</b>                 | UL 62275                  | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1)   | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1)   | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) |
| <b>Flammability Rating</b>                              | UL 94                     | V-2                                       | V-2                                       | HB  | V-2                                       | V-2                                       | V-2   | V-0                                       |
| <b>Low Smoke</b>  | ASTM E662                 | PASS                                      | PASS                                      | PASS  | PASS                                      | PASS                                      | PASS  | PASS                                      |
| <b>Oxygen Index</b>                                     | BS ISO 4589               | 28  | 28  | —   | 28  | 28  | 28  | 34  |
| <b>Halogen-Free</b>                                     | IEC 60754-2               | Yes                                       | Yes                                       | Yes   | Yes                                       | Yes                                       | Yes   | Yes                                       |
| <b>Burning Fume Toxicity</b>                            | BSS-7239                  | PASS                                      | PASS                                      | PASS  | PASS                                      | PASS                                      | PASS  | PASS                                      |
| <b>Heat Deflection Temperature @ 1.8 Mpa</b>            | ASTM D648<br>ISO 75 -1/-2 | 158°F<br>70°C                             | 158°F<br>70°C                             | 145°F<br>63°C                               | 158°F<br>70°C                             | 158°F<br>70°C                             | 158°F<br>70°C                               | 154°F<br>68°C                             |
| <b>Relative Price</b>                                   | —                         | Low                                       | Low                                       | Low   | Low                                       | Low                                       | Med   | Med                                       |

| Material Availability | Product Family                      | PLT | Cross Sections |                 | 3         | 3 | 3 | 3 |
|-----------------------|-------------------------------------|-----|----------------|-----------------|-----------|---|---|---|
|                       |                                     |     | SM, M, I, S    | LH, H, EH       |           |   |   |   |
|                       | <b>Pan-Ty® Cable Ties</b>           | PLT | 3              | SM, M, I, S     | LH, H, EH | 3 | 3 | 3 |
|                       | <b>Super-Grip® Cable Ties</b>       | SG  | 3              | M, I, S, LH     | H         | 3 |   |   |
|                       | <b>Dome-Top® Barb Ty Cable Ties</b> | BT  | 3              | M, I, S         | LH        | 3 | 3 | 3 |
|                       | <b>Dura-Ty™ Cable Ties</b>          | DT  |                |                 |           |   |   |   |
|                       | <b>Contour-Ty® Cable Ties</b>       | CBR | 3              | M, I, S, HS, LH |           | 3 | 3 |   |
|                       | <b>Hyper-V™ Cable Ties</b>          | HV  |                |                 | LH        |   |   |   |
|                       | <b>Sta-Strap® Cable Ties</b>        | SST | 3              | M, I, S, H      |           | 3 |   |   |
|                       | <b>Elastomeric Cable Ties</b>       | ERT |                |                 |           |   |   |   |

| Recommendation Legend |      |            |     |        |
|-----------------------|------|------------|-----|--------|
| Highest               | High | Acceptable | Low | Lowest |
| ●                     | ◐    | ○          | ◑   | ●      |

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

| Flame Retardant Nylon 6.6                 | Weather Resistant Nylon 12                | Polypropylene                             | Weather Resistant Polypropylene           | TEFZEL®                                   | HALAR®                                    | PEEK                                       | Metal Detectable Nylon                    | Metal Detectable Polypropylene            | DT Weather Resistant Acetal               | ERT 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 10 <sup>5</sup>                       | 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 <sup>9</sup>                        | —   | 1 x 10 <sup>5</sup>                       | 6 x 10 <sup>5</sup>                       | —   |
| 1 – 2                                     | 12 – 15                                   | 1   | 7 – 9                                     | >15                                       | >15                                       | —  | —   | 1   | >20                                       | 7 – 9                                     |
| ☐   | ☐   | ☐   | ☐   | ●   | ●   | ●  | ☐   | ☐   | ☐   | ●   |
| ☐   | ☐   | ●   | ●   | ●   | ●   | ●  | ☐   | ●   | ☐   | ●   |
| ●   | ●   | ☐   | ☐   | ●   | ●   | ●  | ●   | ☐   | ●   | ☐   |
| ☐   | ☐   | ☐   | ☐   | ●   | ●   | ●  | ☐   | ☐   | ☐   | ●   |
| ●   | ●   | ●   | ●   | ●   | ●   | ☐  | ●   | ●   | ●   | ☐   |
| ☐   | ☐   | ●   | ●   | ●   | ●   | ●  | ☐   | ●   | ●   | ☐   |
| ☐   | ☐   | ●   | ●   | ●   | ●   | ☐  | ☐   | ●   | ☐   | ☐   |
| -76°F – 212°F<br>-60°C – 100°C            | -76°F – 194°F<br>-60°C – 90°C             | -76°F – 239°F<br>-60°C – 115°C            | -76°F – 239°F<br>-60°C – 115°C            | -76°F – 338°F<br>-60°C – 170°C            | -76°F – 257°F<br>-60°C – 125°C            | -76°F – 500°F<br>-60°C – 260°C<br>(Note 2) | -76°F – 185°F<br>-60°C – 85°C             | -76°F – 239°F<br>-60°C – 115°C            | 76°F – 185°F<br>-60°C – 85°C              | -40°F – 122°F<br>-40°C – 50°C             |
| -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1)  | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) | -4°F or +32°F<br>-20°C or 0°C<br>(Note 1) |
| V-0                                       | HB  | HB  | HB  | V-0                                       | V-0                                       | V-0  | HB  | HB  | 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<br>68°C                             | 122°F<br>50°C                             | 122°F<br>50°C                             | 122°F<br>50°C                             | —   | 149°F<br>65°C                             | 313°F<br>156°C                             | —   | —   | 147°F<br>64°C                             | —   |
| Med                                       | Med                                       | Med                                       | Med                                       | High                                      | High                                      | High                                       | Low                                       | Med                                       | Med                                       | High                                      |
| 3   | 3   | 3   | 3   | 3   | 3   | 3  | 3   | 3   |   |   |
| 3   |   |   |   |   |   |  |   |   | 3   |   |
| 3   |   |   |   |   |   |  |   |   |   |   |
|   |   |   |   |   |   |  |   |   |   | 3   |

**Note 1:** Check UL file for specific part number rating

**Note 2:** Based upon UL RTI for electrical properties

®TEFZEL is a registered trademark of E.I. du Pont de Nemours and Company.

®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

## Pneumatic Hand Tools



**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](http://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

**PANDUIT**®

For more information  
Visit us at [www.panduit.com/cableties](http://www.panduit.com/cableties)  
Contact Customer Service by email: [cs@panduit.com](mailto:cs@panduit.com)  
or by phone: 800-777-3300

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management