

Cable Ties up to 260°C selection guide

Cable Management Solutions



| TIE WIDTH | MIN | MIN | INT | STD |
|-----------|-----|-----|-----|-----|
| SETTING | 0-1 | 1-3 | 3-5 | 5-8 |
| MSR0387-3 | | | | |

Cable Tie Selection

Material Criteria

| | 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 | Flam Retardant Nylon |
|--|---|----------------------------------|-----------------------------|---|---------------------------|---------------------------|---|----------------------------|
| Material | | | | | | | | |
| Color | — | Natural (other colors available) | Black | Black | Black | Natural | Black | Black |
| Part Number Suffix (Material Designation) | — | No Suffix | 0 | 0 | 30 | 39 | 300 | 60 |
| Mechanical Properties | Tensile @ Yield @ 73°F (psi) | ISO 527 | 12,000 | 12,000 | 9,700 | 12,000 | 12,000 | 11,000 |
| | Water Absorption (24 Hours) | ASTM D570 | 1.2% | 1.2% | 1.2% | 1.2% | 1.2% | 1.1% |
| | Radiation Resistance (Rads) | — | 1 x 10 ⁵ | 1 x 10 ⁵ | 1 x 10 ⁵ | 1 x 10 ⁵ | 1 x 10 ⁵ | 1 x 10 ⁵ |
| | Weathering Life Expectancy (Years)/UV Resistance | — | 1 – 2 | 7 – 9 | 7 – 9 | 4 – 5 | 1 – 2 | 7 – 9 |
| | Impact Resistance | — | ○ | ○ | ● | ○ | ○ | ○ |
| Chemical Resistance | Salts | — | ○ | ○ | ○ | ○ | ○ | ○ |
| | Hydrocarbons (Oil, Lubricants) | — | ● | ● | ● | ● | ● | ● |
| | Chlorinated Hydrocarbons | — | ○ | ○ | ○ | ○ | ○ | ○ |
| | Acids | — | ● | ● | ● | ● | ● | ● |
| | Bases | — | ○ | ○ | ○ | ○ | ○ | ○ |
| | Acid Rain | — | ○ | ○ | ○ | ○ | ○ | ○ |
| Thermal Properties | Max. Continuous Use Temperature | UL 746B | 185°F 85°C | 185°F 85°C | 185°F 85°C | 239°F 115°C | 239°F 115°C | 212°F 100°C (Note 1) |
| | Min. Application Use Temperature | EN 50146 | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -40°F -40°C |
| | Flammability Rating | UL 94 | V-2 | V-2 | HB | V-2 | V-2 | V-0 |
| | Low Smoke | ASTM E662 | PASS | PASS | PASS | PASS | PASS | PASS |
| | Oxygen Index | BS ISO 4589 | 28 | 28 | — | 28 | 28 | 34 |
| | Halogen-Free | IEC 60754-2 | Yes | Yes | Yes | Yes | Yes | Yes |
| | Burning Fume Toxicity | BSS-7239 | 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 | 154°F 68°C |
| Relative Price | — | Low | Low | Low | Low | Low | Med | |

| Material Availability | Product Family | | Cross Sections | | Highest | High | Acceptable | Low | Lowest |
|-----------------------|------------------------------|------|----------------|-------------|---------|------|------------|-----|--------|
| | Product Family | Code | SM, M, I, S | LH, H, EH | | | | | |
| | Pan-Ty® Cable Ties | PLT | ✓ | SM, M, I, S | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Super-Grip® Cable Ties | SG | ✓ | M, I, S, LH | ✓ | | | | |
| | Dome-Top® Barb Ty Cable Ties | BT | ✓ | M, I, S | ✓ | ✓ | ✓ | | |
| | Dura-Ty™ Cable Ties | DT | | | | | | | |
| | Contour-Ty® Cable Ties | CBR | ✓ | M, I, S, HS | ✓ | ✓ | | | |
| | Hyper-V™ Cable Ties | HV | | | | | | | |
| | Sta-Strap® Cable Ties | SST | ✓ | M, I, S, LH | ✓ | | | | |
| | Elastomeric Cable Ties | 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

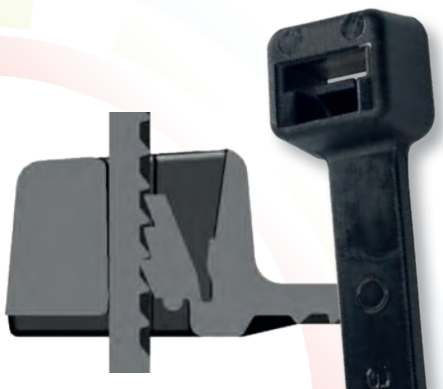
BT Series

Dome top design with stainless steel locking barb



PLT Series

Low threading force and multiple locking tooth design providing strength and reliability



| Flame Retardant 6.6 | 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 ⁵ | 3.5 x 10 ⁶ | 1 x 10 ⁶ | 1 x 10 ⁶ | 2 x 10 ⁸ | 2 x 10 ⁸ | 1 x 10 ⁹ | — | 1 x 10 ⁶ | 6 x 10 ⁵ | — | |
| 1 – 2 | 12 – 15 | 1 | 7 – 9 | >15 | >15 | — | — | 1 | >20 | 7 – 9 (Note 1) | |
| ☉ | ○ | ☉ | ☉ | ● | ● | ● | ○ | ● | ☉ | ● | |
| ☉ | ☉ | ● | ● | ● | ● | ● | ● | ● | ○ | ● | |
| ● | ● | ○ | ○ | ● | ● | ● | ● | ○ | ● | ○ | |
| ☉ | ☉ | ○ | ○ | ● | ● | ● | ● | ○ | ☉ | ● | |
| ● | ● | ● | ● | ● | ● | ○ | ● | ● | ● | ● | |
| ☉ | ☉ | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ☉ | ☉ | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| 212°F 100°C | 194°F 90°C | 239°F 115°C | 239°F 115°C | 338°F 170°C | 302°F 150°C | 500°F 260°C (Note 2) | 185°F 85°C | 239°F 115°C | 185°F 85°C | 122°F 50°C | |
| -40°F -40°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -76°F -60°C | -40°F -40°C |
| 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 68°C | 122°F 50°C | 122°F 50°C | 122°F 50°C | — | 149°F 65°C | 313°F 156°C | — | — | 147°F 64°C | — | |
| Med | Med | Med | Med | High | High | High | Low | Med | Med | High | |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| ✓ | | | | | | | | | | | |
| ✓ | | | | | | | | | ✓ | | |
| | | | | | | | | | | | |
| | | | | | | | | | | ✓ | |

Note 1: Estimated
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.

CBR Series

Unique low profile head design avoids snags and reduces overall bundle size. Outside serrations and smooth round edges protect cable bundle - ideal for high vibration applications



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Cable Tie Selection

Style Selection

IS-Rayfast are franchised distributors for:



Identified below is 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 |
|----------------|-----------------------|-----------|----|----|----|-----|----|-----|-----|
| Styles | Locking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | Releasable | ✓ | | | | | | | ✓ |
| | Marker | ✓ | | ✓ | | | | ✓ | |
| | Clamp | ✓ | | ✓ | | | | ✓ | |
| | Push Mount | ✓ | | ✓ | | | | | |
| | Specialty | ✓ | | ✓ | | | | ✓ | |
| | Cross Sections | Miniature | ✓ | ✓ | ✓ | | ✓ | | ✓ |
| Intermediate | | ✓ | ✓ | ✓ | | ✓ | | ✓ | |
| Standard | | ✓ | ✓ | ✓ | | ✓ | | ✓ | |
| Heavy-Standard | | | | | | ✓ | | | |
| Light-Heavy | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | |
| Heavy | | ✓ | ✓ | | ✓ | | | | |
| Extra-Heavy | | ✓ | | | ✓ | | | | |

Cable Tie Industry Approvals

| Agency | Spec/Approval | Requirement | Products |
|---------------------------------------|--|---|--|
| 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 |
| Germanischer Lloyd | 30562-83HH, 32666-83HH, 51796-89HH, 98731-96HH | Germanischer Lloyd Approval | PLT and BT Series |
| Germany (VG) Military | K17/96066 | VG 95 387 – 100 MS 3367F | PLT, BT and SST Series |
| Korean Register of Shipping | NYK06431-EL001, EL002, EL003 | Type Approval for the Rules for Classification of Steel Ships | PLT and BT Series Mounts |
| 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 Plants and Reprocessing Plants | All cable tie products |
| Nippon Kaiji Kyokai | 85VZ004B, 85BZ005B, 85VZ006B | Nippon Kaiji Kyokai Type Approval | PLT2H-12H, PLT2EH-12EH, PR2EH-12EH and SST2H-8H |
| US Military Aerospace Standard | QPL-AS23190-3 | SAE spec AS23190 | Select PLT, BT, SST, and CBR Series |