

M23053/15 C1

3:1 SHRINK RATIO, FLEXIBLE, SEMI-RIGID, HEAVY WALL, FLAME-RETARDANT, ADHESIVE-LINED POLYOLEFIN TUBING


Applications

MIL-DTL-23053/15 C1 is designed to provide reliable performance as well as excellent mechanical and environmental protection. MIL-DTL-23053/15 C1 is designed for sealing and insulation of cable splices, electrical connections, terminations and jacket repairs. Ideally suited for shipboard, submersible, direct-buried installations, or wherever tougher mechanical protection is required in an electrical insulation system.

Features

- ★ Operating temperature range: -55°C ~ 125°C
- ★ Shrink ratio of 3:1 – 67% or more in the radial direction
- ★ Exceptional flexibility prior to recovery
- ★ Minimum shrink temperature: 120°C
- ★ Flammability: VTFT (IEEE 383)
- ★ High Carbon Black composition to resist UV radiation
- ★ RoHS Compliant

Standard

- ★ MIL-DTL-23053/15 Class 1 & Class 2
- ★ UL 224 (File Number E319303) 
- ★ DNV File No. E-7977, E-7978
- ★ ABS File No. 02-SE23285-X

Specification Values

| Property | | Test Method | Value | |
|-------------------------|-----------------------------|-------------------------------|-------------------|---|
| Physical | Unaged | Tensile strength | ASTM D 412 | Min. 1.06 kgf/mm ² |
| | | Elongation | ASTM D 2671 | Min. 200% |
| | Aged | Tensile strength | ASTM D 412 | Min. 0.76 kgf/mm ² |
| | | Elongation | ASTM D 2671 | Min. 100% |
| | Low temperature flexibility | | ASTM D 2671 | No crack @ -55° C x 4 hrs |
| | Heat shock | | ASTM D 2671 | No crack @ 225° C x 4 hrs |
| Thermal endurance | | IEC 60216 | TI/120° C | |
| Electrical | Dielectric strength | | ASTM D 149 & 2671 | Min. 7.9 kV/mm |
| | Volume resistivity | | IEC 60093 | Min. 10 ¹³ Ω - cm |
| Chemical | Copper corrosion | | ASTM D 2671 | No corrosion |
| | Water absorption | | ASTM D 570 | Max 0.5% @ 23° C/24 hrs |
| | Resistance to mold | | ASTM G 21 | Pass rating 1 |
| | Fluid resistance | Retention of Tensile Strength | ASTM D 412 | ASTM No. 2 OR IRM 902 oil @ 70° C Min. 0.53 kgf/mm ² Min. 100% |
| Retention of Elongation | | ASTM D 2671 | | |

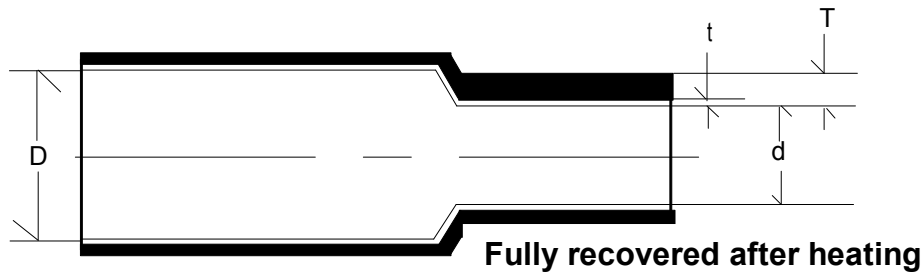
M23053/15 C1

3:1 SHRINK RATIO, FLEXIBLE, SEMI-RIGID, HEAVY WALL, FLAME-RETARDANT, ADHESIVE-LINED POLYOLEFIN TUBING

Available Colors



Black Red



Product Dimensions Minimum Shrink Temperature: 120°C

| Mil Spec | Expanded | | Recovered | | | | |
|----------------|----------------------------------|-------|-------------------------------|------------------------------------|------|------------------------------------|------|
| | As Supplied ID* (min.) (D) | | Adhesive Inner Wall (t) | Internal Diameter (max.) (d) | | Wall Thickness (nominal) (T) | |
| X = Color Code | In. | mm | In. | In. | mm | In. | mm |
| 101-X | .750 | 19.1 | .0294 | .220 | 5.59 | .105 | 2.7 |
| 102-X | 1.100 | 27.9 | .0348 | .375 | 9.53 | .120 | 3.1 |
| 103-X | 1.500 | 38.1 | .0410 | .500 | 12.7 | .140 | 3.6 |
| 104-X | 2.000 | 50.8 | .0375 | .750 | 19.1 | .155 | 3.44 |
| 105-X | 3.000 | 76.2 | .0353 | 1.250 | 31.8 | .155 | 3.44 |
| 106-X | 4.000 | 101.6 | .0455 | 1.750 | 44.5 | .155 | 3.44 |
| 107-X | .300 | 7.6 | .0107 | .100 | 2.5 | .050 | 1.3 |
| 108-X | .400 | 10.2 | .0134 | .150 | 3.8 | .060 | 1.5 |
| 109-X | 1.300 | 33.0 | .0348 | .375 | 9.5 | .120 | 3.1 |
| 110-X | 1.700 | 43.2 | .0410 | .500 | 12.7 | .155 | 3.4 |
| 111-X | 2.700 | 68.6 | .0482 | .900 | 22.9 | .155 | 3.4 |
| 112-X | 4.500 | 114.3 | .0442 | 1.750 | 44.5 | .170 | 4.3 |

* Per M23053/15 – "As Supplied" ID is for uncoated product. An allowance may be necessary depending on coating.