

**Part Number** PTFE

**Header** PTFE 1.8x High Temp Teflon Heat Shrink Tubing

**Description** Thermosleeve-USA PTFE tubing has superior chemical resistance and very low friction properties. It is designed to provide insulation and mechanical protection in severe chemical and thermal environments. PTFE heat shrink tubing has a high temperature tolerance range, high mechanical strength and extremely low friction properties. Used widely in the medical, aviation, aerospace, and scientific instrumentation industries.

**Agency Approval & Compliance** ROHS, Halogen Free, SAE, MIL, Flame Retardant, VW1, REACH

**Application** PTFE is designed to provide insulation and mechanical protection in severe chemical and thermal environments. Used widely in the medical, aviation, aerospace, and scientific instrumentation industries.

**Shrink Ratio and Operating Temperature** PTFE is available as a 1.8:1 material, shrinking to  $\pm 45\%$  of its supplied size. The tubing's wall thickness also changes proportionally to the degree of recovery.

PTFE high temperature heat shrink has a continuous operating temperature range of -55 degrees C (-67 degrees F) to 260 degrees C (500 degrees F)

**Standard Sizes and Dimension**


| Size (mm) | Size (inch) | Inside Dia. (mm) |                    | Wall thickness (mm) |
|-----------|-------------|------------------|--------------------|---------------------|
|           |             | As supplied (D)  | After recovery (d) | After recovery (t)  |
| 0.5       | 1/64"       | 0.7±0.2          | ≤0.4               | 0.23                |
| 0.8       | 1/32"       | 0.8±0.2          | ≤0.45              | 0.23                |
| 1.0       | 3/64"       | 1.0±0.2          | ≤0.5               | 0.23                |
| 1.5       | 1/16"       | 1.5±0.2          | ≤0.9               | 0.25                |
| 2.0       | 5/64"       | 2.0±0.2          | ≤1.3               | 0.25                |
| 2.5       | 7/64"       | 2.5±0.2          | ≤1.5               | 0.30                |
| 3.0       | 1/8"        | 3.0±0.2          | ≤1.8               | 0.30                |
| 3.5       | 9/64"       | 3.5±0.2          | ≤2.0               | 0.30                |
| 4.0       | 5/32"       | 4.0±0.3          | ≤2.5               | 0.30                |
| 4.5       | 3/16"       | 4.5±0.3          | ≤2.8               | 0.30                |
| 5.0       | 13/64"      | 5.0±0.3          | ≤3.0               | 0.30                |
| 6.0       | 1/4"        | 6.0±0.3          | ≤3.8               | 0.38                |
| 7.0       | 9/32"       | 7.0±0.3          | ≤4.0               | 0.38                |
| 8.0       | 5/16"       | 8.0±0.3          | ≤4.8               | 0.38                |
| 9.0       | 3/8"        | 9.0±0.3          | ≤5.0               | 0.38                |

|      |        |          |      |      |
|------|--------|----------|------|------|
| 10.0 | 13/32" | 10.0±0.3 | ≤6.0 | 0.38 |
| 12.0 | 1/2"   | 12.0±0.3 | ≤7.0 | 0.38 |

### Typical Properties

| Item  | Test Method               | Unit    | Specifications    |
|---|---------------------------|---------|-------------------|
| Shrink Temperature                                      | —                         | °C      | 327               |
| Temperature Range                                       | UL224                     | °C      | 200               |
| Operating temperature                                   |                           | °C      | -55°C to+260°C    |
| Tensile strength  | ASTM D638                 | M Pa    | 24.5              |
| Elongation at break                                     | ASTM D638                 | %       | 350               |
| Bending Modulus   | ASTM D790                 | M Pa    | 490               |
| Impact Strength   | ASTM D256+23°C-54°C J/m   |         | No break, 107     |
| Hardness (shore)  | ASTM D2240                | Shore D | 55                |
| Coefficient of Dynamic Friction                         |                           |         | 0.1               |
| Flammability  | UL-224                    |         | VW-1              |
| Dielectric Constant 10 <sup>3</sup> -10 <sup>6</sup> Hz | ASTM D150                 |         | 2.1               |
| Dielectric Dissipation Factor @ 10 <sup>6</sup> Hz      | ASMT D150                 |         | 0.0002            |
| Arc Resistance (Stainless Steel Electrodes)             | ASMT D495                 | S       | >300              |
| Volume Resistivity                                      | ASTM D257                 | Ω /cm   | >10 <sup>18</sup> |
| Weather Resistance                                      | "Weather-o-meter" (2000h) |         | No crack          |
| Fluid resistance  | ASTM D543                 |         | Excellent         |
| Chemical resistance                                     | ASTM D543                 |         | Excellent         |

**Availability** Four-foot lengths, master reels and cut pieces

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