

Flexible, flame-retardant, adhesive-lined,
polyolefin heat-shrinkable tubing

Adhesive-lined, medium-wall DWP-125 heat-shrinkable tubing is a versatile, environmentally friendly choice for many commercial applications that require mechanical protection and sealing against moisture and chemical ingress.

Typical applications include environmental sealing and protection of irregular shapes, such as wire splices and break-outs, in demanding

industries such as appliance and satellite communication. DWP-125 tubing has an outer jacket of radiation-crosslinked, flexible, flame-retardant polyolefin. Unlike other typical flame-retardant tubings, DWP-125 tubing is free of polybrominated biphenyls (PBBs) and polybrominated biphenyl oxides (PBBOs). In Europe, these chemicals are classified as environmentally hazardous substances.

As DWP-125 shrinks, the inner adhesive liner melts and flows to seal and encapsulate components or splices contained within. Because DWP-125 has a three-to-one shrink ratio, only a few sizes are needed to cover a wide range of substrate diameters, enhancing inventory efficiency. DWP-125 is UL-recognized and CSA-certified at 125°C, 600 V.

Temperature rating

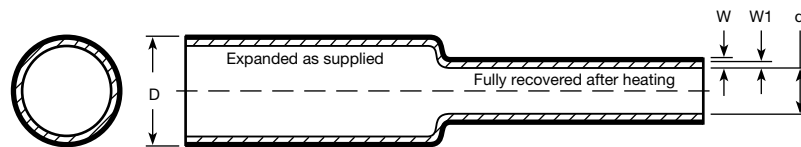
| | |
|-----------------------------------|----------------|
| Full recovery temperature: | 125°C |
| Continuous operating temperature: | -40°C to 110°C |

Specifications*

| Type | Raychem | UL | CSA |
|---------|-------------|--------|---------|
| DWP-125 | DWP-125 SCD | E35586 | LR31929 |

*When ordering, always specify latest issue.

Dimensions (millimeters/inches)



| Size | Inside diameter (including core) | | | | Recovered wall thickness** | | | |
|-------|-------------------------------------|-------|--|-------|----------------------------|-------|--------------------------------|-------|
| | D (min.) Expanded as supplied | | d (max.) Recovered after heating | | W Nominal total wall | | W1 Nominal adhesive wall | |
| 1/8 | 3.2 | 0.125 | 1.0 | 0.040 | 1.0 | 0.040 | 0.25 | 0.010 |
| 3/16 | 4.8 | 0.187 | 1.5 | 0.060 | 1.40 | 0.055 | 0.51 | 0.020 |
| 1/4 | 6.4 | 0.250 | 2.0 | 0.080 | 1.45 | 0.057 | 0.56 | 0.022 |
| 3/8 | 9.5 | 0.375 | 3.0 | 0.120 | 1.65 | 0.065 | 0.68 | 0.027 |
| 1/2 | 12.7 | 0.500 | 4.0 | 0.157 | 1.78 | 0.070 | 0.76 | 0.030 |
| 3/4 | 19.0 | 0.750 | 6.0 | 0.230 | 2.03 | 0.080 | 0.76 | 0.030 |
| 1 | 25.4 | 1.000 | 8.0 | 0.320 | 2.50 | 0.100 | 0.76 | 0.030 |
| 1 1/2 | 38.1 | 1.500 | 13.0 | 0.530 | 2.50 | 0.100 | 0.76 | 0.030 |
| 2 | 50.8 | 2.000 | 20.0 | 0.800 | 2.50 | 0.100 | 0.76 | 0.030 |

**Wall thickness will be less if tubing recovery is restricted during shrinkage.

Ordering information

| | | |
|----------------------|---|---|
| Colors | Standard | Black |
| | Nonstandard | Red, yellow, blue, green, and white; other colors available on request. |
| Size selection | Always order the largest size that will shrink snugly over the component being covered. | |
| Standard packaging | 4-foot lengths | |
| Ordering description | Specify product name, size, and color; for example, DWP-125 1/4-0 (0=Black). | |

Specification values

| | Property | Unit | Requirement | Method of test |
|------------|--|----------------------------|--|----------------------------|
| Physical | Dimensions | mm (<i>inches</i>) | See reverse | ASTM D 2671 |
| | Longitudinal change | percent | +0, -10 | ASTM D 2671 |
| | Tensile strength | psi (<i>MPa</i>) | 1500 (<i>10.3</i>) minimum | ASTM D 2671 |
| | Ultimate elongation | percent | 200 minimum | ASTM D 2671 |
| | Secant modulus (as supplied) | psi (<i>MPa</i>) | 1.5 x 10 ⁴ (<i>103</i>) maximum | ASTM D 2671 |
| | Low-temperature flexibility (1 hour at -30°C/-22°F) | | No cracking | UL 224 |
| | Heat shock (4 hours at 250°C/482°F) | | No cracking | ASTM D 2671 |
| | Heat aging (7 days at 158°C/316°F) | | | ASTM D 2671 |
| | Followed by tests for: | | | |
| | Tensile strength | percent | 70% minimum of original | UL 224 |
| | Ultimate elongation | percent | 100 minimum | UL 224 |
| | Flexibility | | No cracking | UL 224 |
| | Dielectric withstand at 2500 V | seconds | 60 minimum | ASTM D 2671 |
| | Dielectric breakdown | volts | 50% minimum of unaged specimens | ASTM D 2671 |
| | Dielectric strength | volts/mil (<i>kV/mm</i>) | 500 (<i>19.7</i>) minimum | ASTM D 2671 |
| | Restricted shrinkage | | Pass | UL 224 |
| Electrical | Dielectric withstand at 2500 V | seconds | 60 minimum | ASTM D 2671 |
| | Dielectric strength | volts/mil (<i>kV/mm</i>) | 500 (<i>19.7</i>) minimum | ASTM D 2671 |
| | Volume resistivity | ohm-cm | 10 ¹⁴ minimum | ASTM D 2671 |
| Chemical | Corrosive effect (7 days at 158°C/316°F) | | No corrosion | ASTM D 2671 Procedure B |
| | Copper stability (7 days at 158°C/316°F) | | No brittleness, glazing, cracking, or severe discoloration of tubing. No pitting or blackening of copper. | ASTM D 2671 Procedure B |
| | Followed by test for: | | | |
| | Ultimate elongation | percent | 100 minimum | ASTM D 2671 |
| | Flammability | | Pass | UL 224, all tubing |

Note: Except for dimensions, longitudinal change, and flammability, specification values apply to outer jacket only.

Raychem is a trademark of Tyco Electronics Corporation.

Users should independently evaluate the suitability of the product for their application.

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