

# 3M™ Heat Shrink Tubing PSTH

## Elastomeric Polyester, Flexible

Data Sheet

November 2018

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| Description                            | <p>3M™ Heat Shrink Tubing PSTH is a high performance, rugged heat shrinkable tubing designed for harsh operating conditions. The tubing is made from flexible elastomeric polyester and has a continuous operating temperature range of -55°C (-70°F) to 150°C (302°F). 3M PSTH tubing is resistant to a wide range of solvents and chemicals including aviation fuel, diesel fuel, lubricating oils and hydraulic fluid. 3M PSTH tubing is specifically designed to pass the SC-X1511C military specification but also meets the functional requirements of MIL-DTL-23053/16.</p> |
| Agency Approvals & Self Certifications | <p>Meets requirements of:</p> <ul style="list-style-type: none"><li>• AS23053/16*</li><li>• SC-X-1511</li><li>• For RoHS and REACH information, please visit <a href="http://www.3M.com/regs">www.3M.com/regs</a></li></ul> <p>*Formerly MIL-I-AS23053/16, MIL-DTL-23053/16 and SAE-AMS-DTL-23053/16</p>   |
| Typical Applications                   | <p>3M PSTH tubing is primarily designed for wire harnessing applications on military ground vehicles. It was primarily developed for the M-1 tank program, but is well suited for any application where conditions call for a high performance heat shrink tubing, particularly where the tubing will be exposed to petroleum based fluids. 3M PSTH tubing is also an excellent choice for heavy duty equipment and off-road vehicles.</p>   |
| Shrink Ratio                           | <p>3M PSTH tubing has a 2:1 shrink ratio. When freely recovered, the tubing will shrink to 50% of its as-supplied internal diameter. The recovered wall thickness is proportional to the degree of recovery.</p>   |

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## Standard Sizes and Dimensions

| Ordering Size | Expanded I.D.<br>(Minimum)<br>In. (mm) | Recovered I.D.<br>(Maximum)<br>In. (mm) | Recovered Wall<br>Thickness<br>(Nominal)<br>In. (mm) |
|---------------|--|---|--|
| 3/16          | .187 (4,75)                            | .093 (2,36)                             | .035 (0,89)  |
| 1/4           | .250 (6,35)                            | .125 (3,18)                             | .035 (0,89)  |
| 3/8           | .375 (9,53)                            | .187 (4,75)                             | .035 (0,89)  |
| 1/2           | .500 (12,70)                           | .250 (6,35)                             | .035 (0,89)  |
| 5/8           | .625 (15,88)                           | .312 (7,92)                             | .042 (1,07)  |
| 3/4           | .750 (19,05)                           | .250 (6,35)                             | .042 (1,07)  |
| 7/8           | .875 (22,23)                           | .437 (11,10)                            | .045 (1,14)  |
| 1             | 1.000 (25,40)                          | .500 (12,70)                            | .049 (1,24)  |
| 1-1/4         | 1.250 (31,75)                          | .625 (15,88)                            | .055 (1,40)  |
| 1-1/2         | 1.500 (38,10)                          | .750 (19,05)                            | .055 (1,40)  |
| 2             | 2.000 (50,80)                          | 1.000 (25,40)                           | .065 (1,65)  |
| 2 1/2         | 2.500 (63,50)                          | 1.250 (31,75)                           | .065 (1,65)  |

## Typical Properties

Technical information provided consists of typical product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.

| Physical Property                            | Typical Value<br>US units (metric) |
|--|------------------------------------|
| Tensile Strength                             | 2200 PSI                           |
| Ultimate Elongation                          | 350%                               |
| Longitudinal Change                          | +2, -8%                            |
| Specific Gravity                             | 1.6                                |
| Operating Temperature Range                  | -55°C to +150°C                    |
| Shrink Temperature<br>(Min.)                 | 170°C<br>(338°F)                   |
| Low Temperature Flexibility<br>4 hrs @ -55°C | No cracking                        |
| Flammability                                 | Self-extinguish                    |
| Electrical Property                          | Typical Value<br>US units (metric) |
| Dielectric Strength                          | 500 V/mil                          |
| Volume Resistivity                           | 7x10 <sup>14</sup> ohm/cm          |
| Chemical Property                            | Typical Value<br>US units (metric) |
| Corrosion Resistance                         | Non-corrosive                      |
| Fuel & Oil Resistance                        | Excellent                          |
| Solvent Resistance                           | Excellent                          |
| Abrasion Resistance                          | Excellent                          |
| Acids & Alkalis Resistance                   | Excellent                          |

# 3M™ Heat Shrink Tubing PSTH

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Standard Colors      Black

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**Shelf Life & Storage**      3M™ Heat Shrink Tubing PSTH has a 4-year shelf life from date of manufacture when stored in a humidity controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity).

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**Availability**      **Standard Packaging**  
Spools

Order 3M PSTH tubing by product name, size equivalent to the expanded inside diameter, package type and color. Always order the largest size that will shrink snugly over the component to be covered.  
Example: PSTH, 3/8", black, spools.

Please contact your local distributor; available from [3M.com/oem](http://3M.com/oem) [Where to Buy] or call 1-800-676-8381.

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