



PSTH Tubing

Elastomeric Polyester, Flexible

Data Sheet

Product Description

3M™ PSTH tubing 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). PSTH 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.

Typical Applications

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. PSTH is also an excellent choice for heavy duty equipment and off-road vehicles.

Shrink Ratio

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.

Standard Color

Black.

Standard Packaging

Spools.

Ordering Information

Order 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.

Standard Sizes and Dimensions

| Ordering Size | Expanded I.D. (Minimum) | | Recovered I.D. (Maximum) | | Recovered Wall Thickness (Nominal) | |
|---------------|-------------------------|---------|--------------------------|---------|------------------------------------|--------|
| | in. | (mm) | in. | (mm) | 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

Applicable Specification

SC-X1511C

(meets functional requirements of MIL-DTL-23053/16)

Physical

Tensile Strength 2200 PSI
 Ultimate Elongation 350%
 Longitudinal Change +2,-8%
 Specific Gravity 1.6
 Operating Temperature -55°C to +150°C
 Shrink Temperature 170°C (Min.) (338°F)
 Low Temperature Flexibility (4 hrs. @ -55°C) No cracking
 Flammability Self-extinguish

Electrical

Dielectric Strength 500 V/mil
 Volume Resistivity 7x10¹⁴ ohm-cm

Chemical

Corrosion Resistance Non-corrosive
 Fuel & Oil Resistance Excellent
 Solvent Resistance Excellent
 Abrasion Resistance Excellent
 Acids & Alkalis Resistance Excellent

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.

Limited Warranty – 3M expressly warrants that for a period of ninety days from the date of purchase, 3M static control products will be free of defects in materials (parts) and workmanship (labor). Defects occurring during the warranty period will be repaired or products will be replaced at 3M's option and expense, if 3M receives notice during the warranty period. Defective products must be returned to 3M with proof of purchase date.

Warranty Exclusions – THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESS AND IMPLIED, INCLUDING FITNESS AND MERCHANTABILITY. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean, or repair products.

Limit of Liability – In no event will 3M or Seller be responsible or liable for special, incidental, or consequential losses or damages, whether based in tort or contract. Fulfillment of 3M's warranty obligations will be Customer's exclusive remedy and 3M's and Seller's limit of liability for any breach of warranty or otherwise.

For your nearest distributor or to order, call 1-800-328-1368

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