



SR-350 Tubing

Semi-Rigid Polyolefin

Data Sheet

Product Description

3M™ SR-350 is a semi-rigid, heat-shrinkable tubing that offers superior cut-through and abrasion-resistance characteristics for optimum mechanical performance. In addition, SR-350 Tubing has excellent electrical-insulation and chemical-resistance properties.

SR-350 Tubing meets the requirements of MIL-DTL-23053/6, Class 1 & 2, AMS-3638 and AMS-3639. It is UL Recognized at 600 volts @ 125°C (UL File Nos. E-39100 and E-69751).

SR-350 Tubing is rated for continuous operation from –55°C (–67°F) to 135°C (275°F) and withstands operating temperatures to 300°C (572°F) for short periods. Minimum shrink temperature for all SR-350 Tubing is 135°C (275°F).

Typical Applications

SR-350 Tubing is ideally suited for strain-relief applications, wire marking and protective covering and packaging of delicate components. It is widely used for insulating mechanically weak or damage-susceptible points such as solder joints, wire splices and terminations.

Because it holds its expanded “roundness,” SR-350 Tubing is highly recommended for use with automatic feed equipment. The tubing is readily printable by hot-stamp or print-wheel techniques.

Shrink Ratio

SR-350 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 of the tubing is proportional to the degree of recovery. High expansion-ratio SR-350 Tubing is available subject to factory quotation.

Standard Colors

SR-350, Class 1 (flame retardant) – black. Special color-coded sizes are available. SR-350, Class 2 (non-flame retardant) – clear.

Standard Packaging

Four-foot lengths. Cut pieces available subject to factory quotation.

Ordering Information

Order SR-350 by product name, size equivalent to expanded inside diameter, package type and color. Always order the largest size that will shrink snugly over the item to be covered.

Example: SR-350, 1/4", 4 ft., black.

Standard Sizes and Dimensions

Ordering Size	Expanded I.D. (Minimum)		Recovered I.D. (Maximum)		Recovered Wall Thickness (Nominal)	
	in.	(mm)	in.	(mm)	in.	(mm)
3/64	.046	(1,17)	.023	(0,58)	.020	(0,51)
1/16	.063	(1,60)	.031	(0,79)	.020	(0,51)
3/32	.093	(2,36)	.046	(1,17)	.020	(0,51)
1/8	.125	(3,18)	.062	(1,57)	.020	(0,51)
3/16	.187	(4,75)	.093	(2,36)	.025	(0,64)
1/4	.250	(6,35)	.125	(3,18)	.025	(0,64)
3/8	.375	(9,53)	.187	(4,75)	.030	(0,76)
1/2	.500	(12,70)	.250	(6,35)	.030	(0,76)

Typical Properties

Applicable Specification

**MIL-DTL-23053/6, Class 1, 2; AMS-3638, AMS-3639;
UL File E-39100, E-69751**

Physical

Tensile Strength 2600 PSI
Ultimate Elongation 400%
Longitudinal Change ±5%
Secant Modulus (2%) 28,000 PSI
Specific Gravity 1.25 (Black)
.95 (Clear)
Heat Aging Elongation (336 hrs. @ 175°C) 175%
Heat Shock No dripping, cracking, (4 hrs. @ 250°C) passes mandrel wrap test
Low Temperature Flexibility (4 hrs. @ –55°C) No cracking
Flammability Self-extinguish (Class 1 only)

Electrical

Dielectric Strength 800 V/mil
Volume Resistivity 10¹⁵ ohm-cm

Chemical

Corrosive Effect Non-corrosive
Solvent Resistance
Tensile Strength 1600 PSI
Dielectric Strength 400 V/mil
Water Absorption 0.2%
Fungus Resistance Non-nutrient

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 ALLOTHER 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

3M Electrical Specialties Division

6801 River Place Blvd.
Austin, TX 78726-9000

© 3M March 1997