

3M™ Heat Shrink Tubing SFTW-203

3:1 Very Flexible Polyolefin

Data Sheet

February 2019

Description	3M™ Tubing SFTW-203 is a 3:1 shrink ratio tubing that offers an excellent balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. 3M SFTW-203 tubing is made of very flexible, heat-shrinkable polyolefin which is mechanically tough, chemically resistant, and can be easily surface printed. 3M SFTW-203 tubing has been engineered to offer a low shrink temperature of 100°C (212°F). This allows the tubing to shrink rapidly, and minimizes heat exposure and possible damage to temperature sensitive substrates. It is rated for continuous operation from -55°C (-67°F) to 135°C (275°F), and withstands elevated temperatures of 300°C (572°F) for brief periods.
Agency Approvals & Self Certifications	Meets requirements of: • UL Recognized, File E-48398 • CSA Certified, CSA LR38227 • For RoHS and REACH information, please contact 3M
Typical Applications	The extra flexibility and low shrink temperature of 3M SFTW-203 tubing make it ideal for shrink-fit jacketing and insulation of flexible wire bundles and temperature sensitive components. The 3:1 shrink ratio makes 3M SFTW-203 tubing the insulation of choice for end terminations where the connector body is larger than the cable and for repair applications where the tubing must be slid over a connector. 3M SFTW-203 tubing can also be used to insulate an oversized component in line to the wiring.
Shrink Ratio	3M SFTW-203 tubing has a 3:1 shrink ratio. When freely recovered, the tubing will shrink to 33% of its as-supplied internal diameter. The recovered wall thickness of the tubing is proportional to the degree of recovery.
Standard Colors	Black

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Standard Sizes and Dimensions

Ordering Size	Expanded I.D. (Minimum) In. (mm)	Recovered I.D. (Maximum) In. (mm)	Recovered Wall Thickness (Nominal) In. (mm)
1/16	.059 (1,5)	.020 (0,5)	.018 (0,45)
1/8	.118 (3,0)	.039 (1,0)	.022 (0,55)
1/4	.236 (6,0)	.079 (2,0)	.026 (0,65)
3/8	.354 (9,0)	.118 (3,0)	.030 (0,75)
1/2	.472 (12,0)	.157 (4,0)	.030 (0,75)
3/4	.709 (18,0)	.236 (6,0)	.030 (0,75)
1	.945 (24,0)	.315 (8,0)	.039 (1,00)
1-1/2	1.535 (39,0)	.512 (13,0)	.045 (1,15)

Note: Dimensions in inches are approximate.

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 US units (metric)
Tensile Strength	2600 PSI
Ultimate Elongation	400%
Longitudinal Change	±5%
Secant Modulus (2% elong.)	8700 PSI
Specific Gravity	1.29
Heat Shock 4 hrs @ 250°C	No cracking, flowing or dripping
Water Absorption	0.2%
Heat Aging 168 hrs @ 158°C	Elongation 350%
Low Temperature Flexibility 4 hrs @ -55°C	No cracking
Flammability	Self-extinguish
Electrical Property	Typical Value US units (metric)
Dielectric Strength	700 V/mil
Volume Resistivity	10 ¹⁵ ohm/cm
Chemical Property	Typical Value US units (metric)
Corrosion Resistance	Non-corrosive
Solvent Resistance Tensile Strength Dielectric Strength	1100 PSI 400 V/mil
Fungus Resistance	Inert

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Shelf Life & Storage

3M™ Heat Shrink Tubing SFTW-203 has a 10-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).

Availability

Standard Packaging

Boxes of four-foot lengths, or large spools. Cut pieces subject to factory quotation.

Order SFTW-203 by product name, size equivalent to expanded inner diameter, color, and package type. Always order the largest size that will shrink-fit snugly over the item to be covered.

Example: SFTW-203, 1/2", black, 4 ft lengths.

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

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