

3M™ Heat Shrink Tubing FP-301

Standard Sizes and Dimensions

| Ordering Size (Nominal) | 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) | .016 | (0,41) |
| 1/16 | .063 | (1,60) | .031 | (0,79) | .017 | (0,43) |
| 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) | .020 | (0,51) |
| 1/4 | .250 | (6,35) | .125 | (3,18) | .025 | (0,64) |
| 3/8 | .375 | (9,53) | .187 | (4,75) | .025 | (0,64) |
| 1/2 | .500 | (12,70) | .250 | (6,35) | .025 | (0,64) |
| 3/4 | .750 | (19,05) | .375 | (9,53) | .030 | (0,76) |
| 1 | 1.000 | (25,40) | .500 | (12,70) | .035 | (0,89) |
| 1-1/2 | 1.500 | (38,10) | .750 | (19,05) | .040 | (1,02) |
| 2 | 2.000 | (50,80) | 1.000 | (25,40) | .045 | (1,14) |
| 3 | 3.000 | (76,20) | 1.500 | (38,10) | .050 | (1,27) |
| 4 | 4.000 | (101,60) | 2.000 | (50,80) | .055 | (1,40) |

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Typical Properties

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (23°C) unless otherwise stated.

| Physical Property | Typical Value US units (metric) |
|---|---|
| Tensile Strength | 2400 psi |
| Ultimate Elongation | 400% |
| Longitudinal Change | ±5% |
| Secant Modulus (2%) | 13,000 psi |
| Specific Gravity | 1.3 (Opaque) .93 (Clear) |
| Operating Temperature | -67° to 275°F (-55° to +135°C) |
| Shrink Temperature (minimum) | 212°F (100°C) |
| Heat Aging (336 hrs. @ 175° C) | Elongation 175% |
| Heat shock (4 hrs. @ 250° C) | No dripping, flowing, cracking, passes mandrel wrap test |
| Low Temperature Flexibility (4 hrs @ -55° C) | No cracking |
| Scant Modules (2%) | 13,000 psi |
| Flammability Self-extinguish, Meets UL 224 All-Tubing Flame Test (Except Clear) | Pass |

| Electrical Property (Test Method) | Typical Value |
|-----------------------------------|-------------------------|
| Dielectric Strength | 900 V/mil |
| Volume Resistivity | 10 ¹⁵ ohm/cm |

| Chemical Property (Test Method) | Typical Value |
|--------------------------------------|---------------|
| Corrosion Resistance (Copper mirror) | Non-corrosive |
| Fungus Resistance | Non-nutrient |
| Water Absorption | 0.2% |
| Solvent Resistance | Excellent |

Standard Colors

Black, Clear

Also available in Blue, Green, Red, White and Yellow. Price, MOQ and Lead Time will vary for these colors. Please contact Local Sales Representative or Customer Service Representative for more information.

NOTE: The clear tubing is not flame retardant or UL listed.

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|----------------------|---|
| Shelf Life & Storage | 3M™ Heat Shrink Tubing FP-301 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 Four-foot lengths, large spools (21" diameter) and small spools (8½" diameter). Please contact your local distributor; available from 3M.com/oem [Where to Buy] or call 1-800-676-8381. |

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