

SCT Raychem

Adhesive-lined, semirigid, polyolefin heat-shrinkable tubing (extended temperature range)

SCT is a high-quality, dual-wall tubing designed to insulate and seal automotive wire splices and components made by ultrasonic welding, clip-and-dip, or soldering. Typical applications are insulating and sealing splices in an under-the-hood automotive environment.

SCT has a tough outer wall made of radiation crosslinked, flame-retardant, semirigid polyolefin. The inner wall is a unique, specially formulated hotmelt adhesive designed to function at an extended temperature range. The adhesive forms an outstanding barrier against moisture and automotive fluids.

This barrier provides exceptional protection against corrosion.

Because SCT has a high shrink ratio, only a few sizes are needed to cover a wide range of splice and component diameters.

Temperature rating

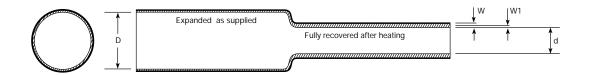
| Full recovery temperature: | 135°C |
|-----------------------------------|----------------|
| Continuous operating temperature: | -40°C to 150°C |

Specifications*

| Туре | Raychem |
|------|---------|
| SCT | SCT SCD |

^{*}When ordering, always specify latest issue.

Dimensions (millimeters/inches)



Recovered wall thickness**

| | mode diameter | | Recovered wall trickings | Necovered wan trickness | | |
|-----------|-------------------|-----------------|--------------------------|-------------------------|--|--|
| | D (min.) | d (max.) | W | W1 (min.) | | |
| | Expanded as | Recovered after | Total | Adhesive | | |
| Size | supplied | heating | wall | wall | | |
| SCT No. 1 | 7.6 0.300 | 1.7 0.065 | 1.52 ± 0.30 | 0.76 0.030 | | |
| SCT No. 2 | 9.0 <i>0.355</i> | 2.3 0.090 | 1.52 ± 0.30 | 0.76 0.030 | | |
| SCT No. 3 | 11.6 <i>0.455</i> | 2.5 0.100 | 2.29 ± 0.30 | 1.40 <i>0.055</i> | | |
| SCT No. 4 | 17.8 <i>0.700</i> | 4.4 0.175 | 2.54 ± 0.30 | 1.52 <i>0.060</i> | | |

^{**}Wall thickness will be less if tubing recovery is restricted during shrinkage.

Inside diameter

Ordering information

| Color | Black |
|----------------------|--|
| Size selection | Always order the largest size that will shrink snugly over the component being covered. |
| Standard packaging | Cut pieces. See reverse for information on standard cut lengths. |
| Marking | Tubing will be marked with the number size (for example, SCT-1, SCT-2, SCT-3, SCT-4). |
| Ordering description | Specify product name, size, and color, and cut length; for example, SCT-No.2-0-50MM (0=Black). |

Specification values

| | Property | Unit | Requirement | Method of test |
|------------|-----------------------------------|-------------|--------------------------|----------------|
| Physical | Dimensions | mm (inches) | See reverse | ASTM D 2671 |
| | Longitudinal change | percent | +0, –10 | ASTM D 2671 |
| | Tensile strength | psi | 1500 minimum | ASTM D 2671 |
| | Ultimate elongation | percent | 300 minimum | ASTM D 2671 |
| | Secant modulus (as supplied) | psi | 35,000 minimum | ASTM D 2671 |
| | Concentricity (as supplied) | percent | 60 minimum | ASTM D 2671 |
| | Heat shock | | No cracking, dripping or | ASTM D 2671 |
| | (4 hours at 250°C/482°F) | | flowing of jacket | |
| Electrical | Dielectric strength (jacket only) | volts/mil | 500 minimum | ASTM D 149 |
| | Volume resistivity | ohm-cm | 10 ¹³ minimum | ASTM D 257 |
| | Immersion leak resistance | microamps | 0.25 maximum | See note below |
| | Thermal aging | | | See note below |
| | (1000 hours at 150°C/302°F) | | | |
| | Followed by test for: | | | |
| | Immersion leak resistance | microamps | 0.25 maximum | |
| | Thermal cycling | | | See note below |
| | 25 cycles | | | |
| | (-40°C to 135°C/-40°F to 225°F) | | | |
| | Followed by test for: | | | |
| | Immersion leak resistance | microamps | 0.25 maximum | |
| Chemical | Fluid resistance | | | See note below |
| | (24 hours at 25°C/77°F) in: | | | |
| | ASTM Reference Fuel C | | | |
| | VV-F-800 Diesel Fuel | | | |
| | (24 hours at 100°C/212°F) in: | | | |
| | ASTM #3 Oil | | | |
| | Followed by test for: | | | |
| | Immersion leak resistance | microamps | 0.25 maximum | |

Note: Consult Raychem SCT SCD for specific details about test procedures.

Standard cut lengths

| Part number | Standard cut length | Cut length tolerance | |
|-------------|---------------------|----------------------|--|
| SCT No. 1 | 27 mm, 50 mm, 65 mm | ± 1.5 mm | |
| | 1220 mm | ± 25.4 mm | |
| SCT No. 2 | 27 mm, 50 mm, 65 mm | ± 1.5 mm | |
| | 1220 mm | ± 25.4 mm | |
| SCT No. 3 | 27 mm, 65 mm, 75 mm | ± 1.5 mm | |
| | 1220 mm | ± 25.4 mm | |
| SCT No. 4 | 27 mm, 75 mm, 90 mm | ± 1.5 mm | |
| | 1220 mm | ± 25.4 mm | |

Raychem is a trademark of Tyco Electronics Corporation.

Users should independently evaluate the suitability of the product for their application.

Tyco Electronics Corporation 300 Constitution Drive Menlo Park, CA 94025-1164 USA Tel: (800) 926-2425 (US & Canada) Tel: +1 (650) 361-3860 (All other countries)

Faraday Road Dorcan, Swindon, SN3 5HH United Kingdom Tel: +44 1793 528171 3816 Noborito, Tama-ku Kawasaki, Kanagawa 214-8533 Japan Tel: +81 44 900 5102 Asia Pacific Headquarters 26 Ang Mo Kio, Industrial Park 2 Singapore 569507 Tel: +65 4866 151

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