

- Liner flows at 90°C
- UL approved construction is available
- One-step moisture proof encapsulation
- Shrink ratio: 2.5:1

SCL

Semi-rigid selectively crosslinked heat-shrinkable encapsulation tubing

Raychem SCL is a semi-rigid heat-shrinkable tubing with a meltable inner wall, designed to provide one-step moisture proof encapsulation of a wide variety of electrical parts including wire splices, breakouts and electronic components. Manufactured by Raychem from radiation crosslinked polyolefins, SCL has an inner wall which melts when

heated and is forced into the crevices and interstices by the shrinking action of the outer tubing. When cooled the entire mass becomes a rigid, tough, homogeneous covering with a controlled wall thickness. SCL shrinks to between 17% and 40% of its supplied diameter according to size and therefore few sizes

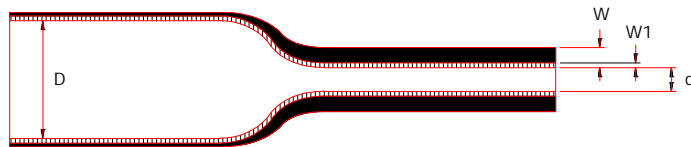
are required to cover a range of irregular shapes with widely varying dimensions.

Unaffected by most solvents and chemicals and non-corrosive in contact with electrical joints, SCL also has a high dielectrical strength.

Temperature rating

Operating temperature range	-55°C to +110°C
Minimum shrink temperature:	+125°C
Minimum full recovery temperature:	+135°C

Ordering information



Inside diameter		Wall thickness		Standard package	
D (min) Expanded as supplied	d (max) Recovered after heating	W (nom) Total wall recovered after heating	W1 (nom) Meltable wall recovered after heating	1.22m length quantity	Ordering description
mm	mm	mm	mm	m	
3.2	0.6	0.96	0.51	30	SCL- ¹ / ₈ -0
4.8	1.5	1.09	0.64	30	SCL- ³ / ₁₆ -0
6.4	2.0	1.19	0.69	30	SCL- ¹ / ₄ -0
9.5	3.4	1.27	0.76	30	SCL- ³ / ₈ -0
12.7	5.0	1.39	0.89	30	SCL- ¹ / ₂ -0
19.1	8.0	1.65	1.02	30	SCL- ³ / ₄ -0
25.4	10.2	1.90	1.02	30	SCL-1-0

The largest size that will recover snugly over the component to be covered should be ordered.

The wall thickness of the tubing will be less than specified if recovery is restricted during shrinkage.

Other lengths, colours (colour coded by size) and sizes are available subject to special order.

SCL is available in special UL approved constructions.

Standard colours

Colour	Black
Code	0

SCL

Approvals

UL E85381
MIL-DTL-23053/4 Class 1
AFS 2059/A

Performance

Test	Test method	Test requirement
Tensile strength:	ISO 37	10MPa (min)
Ultimate elongation:	ISO 37	200% (min)
Heat shock:	4 h at 250°C	Pass - no dripping, cracking or flowing of outer wall
Heat ageing:	168 h at 175°C	Pass - no dripping, cracking or flowing of outer wall
Low temperature flexibility:	4 h at -55°C	Pass - no cracking
Dielectric strength:	IEC 243	20 MV/m (min) dependent on wall thickness
Fluid resistance:	24 h at 23°C, ISO 37, ISO 1817	Tensile strength: 7 MPa (min) Ultimate elongation: 150% (min)
	Test fluids:	Aircraft fuel - test liquid B Phosphate, ester based - test liquid 103 Lubricating oil, ester based - test liquid 101

For full product performance details consult Raychem Specification RT-1301.

Specifications

Raychem Specification RT-1301.
Installation instructions available on request.
Material Safety Data Sheet available on request.

Raychem and SCL are trademarks of Tyco Electronics Corporation.

All of the above information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. Tyco Electronics makes no warranties as to the accuracy or completeness of the information and disclaims any liability regarding its use. Tyco Electronics only obligations are those in the Standard Terms and Conditions of Sale for this product and in no case will Tyco Electronics be liable for any incidental, indirect or consequential damages arising from the sale, resale, use or misuse of the product. Tyco Electronics Specifications are subject to change without notice. In addition Tyco Electronics reserves the right to make changes in materials or processing, without notification to the Buyer, which do not affect compliance with any applicable specification.

Tyco/Electronics/Raychem
306 Constitution Drive
Menlo Park, CA 94025
U.S.A
Tel: (650)-361 3333

Tyco/Electronics/Raychem
Cheney Manor Industrial Estate
Swindon, Wiltshire SN2 2QE
UK
Tel: (44)-1793 573762

Tyco/Electronics/Raychem
3816 Noborito, Tama-ku
Kawasaki 214-8533
Japan
Tel: (81)-44 9005102

Tyco/Electronics/Raychem
No. 26 Ang Mo Kio Ind. Park
Singapore 569507
Tel: (65)-4866151