

- 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

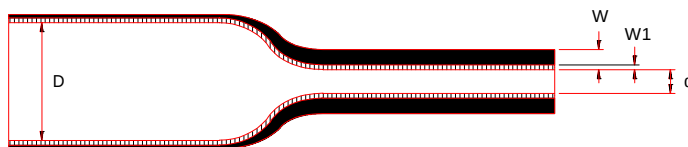
are required to cover a range of irregular shapes with widely varying dimensions.

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.

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