



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

SILCAST™ SC-550-LV-TC-2

Thermally Conductive Silicone Encapsulant

SC-550-LV-TC-2 is a 100% silicone solid elastomer designed for electronic potting applications. This two-component system offers a hard, self-bonding, thermally conductive, low modulus material that is readily repairable. SC-550LV-TC-2 is highly filled and offers excellent thermal conductivity. It is also offers a convenient mix ratio of 1:1 by weight and volume.

- Complies with “ROHS” requirements
- High Thermal Conductivity

Typical Applications:

Potting and encapsulating of:

- Equipment modules
- Power supplies, relays and amplifiers
- Transformers, coils and ferrite cores
- Fiber optic wave guide coatings
- Encapsulation of circuit boards

Advantages:

- Self-Bonding, excellent Adhesion to many plastics and metals
- Easy to use 1:1 mix ratio by weight or volume
- Long pot life at Room Temperature
- Excellent Thermal cycling stability

TYPICAL HANDLING PROPERTIES:

SILCAST	PART-A
Hardener	PART-C
Mix ratio by weight, (PART-A/PART-C)	100/100
Mixed Viscosity at 25°C, cp	20000-25000
Pot Life (500 grams) at 25°C, hr	2-3 hrs
Shelf Life @ 25°C	1 Year

CURE OPTIONS:

- 24 hrs @ 25°C
- 2 hrs @ 70°C
- 20 min @ 100°C

TYPICAL CURED PROPERTIES

(Tested @ 25°C unless otherwise indicated)

Color	Gray
Specific Gravity	1.8
Hardness, Shore A	60
Tensile Strength, psi	>300
Elongation, %	80
Thermal Conductivity, W/m ² K	2.3
Service Temperature range	-55°C to 200°C
Dielectric Strength, kV/mm	17.5
Dielectric Constant at 1 kHz	6.0
Dissipation Factor at 1 kHz	<1.0
Volume Resistivity, ohm-cm	>1.0x10 ¹⁴

INSTRUCTIONS FOR USE:

1. Stir well the contents of each container every time before removing material.
2. Weigh each 100 grams of PART-A to 100 grams of Hardener PART-C.
3. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
4. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
5. Typical cured properties were determined using recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules.

AVAILABILITY:

Packaged in 1-gallon, 5-Gallon and 55-Gallon size

FOR INDUSTRIAL USE ONLY:

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Adequate ventilation of workplace and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to Material Safety Data Sheet (MSDS) for additional health and safety information.

DISCLAIMER: All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.