



1 Industrial Circle, Lincoln, RI 02865, USA
Phone: (401) 726-4500 ■ Fax: (401) 726-4502
Email: info@epoxyset.com ■ Web: www.epoxyset.com

SILICONE ENCAPSULANTS

SILCAST compounds are designed for potting and encapsulation of electrical/electronics components that require the dissipation of heat and the high temperature properties and low stress of a silicone compound. The cured material has a very good flexibility with excellent electrical properties and high temperature resistance. It may be knife-cut for replacement of components and new compound may be poured in place and cured to re-form tight seal.

SILCAST	SC-440	SC-450	SC-452	SC-454M-6	SC-550	SC-550LV
Mix ratio by weight (Resin/Hardener)	100/100	100/10	100/3	100/3	100/100	100/100
Mix Viscosity @ 25°C, cp	600-800	800-1000	30,000	4000-6000	3500	800
Pot life (500 grams) @ 25°C, hr	2	1	>8	1	>8 hrs	>8 hrs
Recommended Cure	½ hr @ 125°C	1 hr @ 100°C	2-3 hr @ 65°C	24 hr @ 25°C	1 hr @ 100°C	1 hr @ 100°C
Alternate Cure	1 hr @ 100°C	24 hrs @ 25°C	48 hr @ 25°C	-	½ @ 125°C	½ @ 125°C
TYPICAL CURED PROPERTIES						
Color	Clear	Clear	Red	Red	Gray	Gray
Specific Gravity	1.05	1.05	2.14	2.0	1.40	1.40
Hardness, Shore A	40	38	70	55	30	30
Thermal Conductivity, W/m°K	-	-	1.4	1.6	0.5	0.5
Tensile Strength, psi	800	800	600	650	>250	>250
% Elongation	100	100	70-80	70-80	>200	>200
Service Temperature	-55°C to 200°C	-55°C to 200°C	-65°C to 220°C	-65°C to 250°C	-55°C to 200°C	-55°C to 200°C
Flammability	Self-extinguishing	Self-extinguishing	Meets UL-94V0	Meets UL-94V0	UL-94VO approved	UL-94VO approved
Dielectric Constant @ 1 kHz	2.6	2.6	5.6	5.8	2.9	2.9
Dissipation Factor @ 1 kHz	0.001	0.001	0.01	0.01	0.02	0.02
Volume Resistivity, ohm-cm	2x10 ¹⁵	2x10 ¹⁵	8x10 ¹⁴	6x10 ¹⁶	2x10 ¹⁶	2x10 ¹⁶

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.