

SILICONE POTTING GEL TCR-H-SI-2C

dispensable / 2 parts / low viscosity

TCR-H-SI-2C is a 2-part addition cure silicone potting compound which is filled with thermally conductive fillers of high temperature stability. It is characterised by very good dielectric and mechanic properties and is suited for encapsulating electric and electronic parts such as transformers, capacitors, inductors, sensors, LEDs and can be moulded or dispensed under normal conditions at room temperature or in vacuum. Its rheologic behaviour allows for usage in geometries that are difficult to access.



Release 03 / 2020

PROPERTIES

- Silicone
- Low viscosity
- 2 part addition cure
- Thermal conductivity: 1.2 W/mK
- Almost zero stress on components
- Dispensable or mouldable
- Heat accelerated curing
- High resistivity against water and humidity
- Shock absorbing

AVAILABILITY

- 2 kg / 10 kg (2 x 5 kg) AB Kit

APPLICATION EXAMPLES

Thermal link of:

- Inductors
- Capacitors
- Heat Pipes
- BGA

For use in Automotive applications
/ Telecommunication / Controlling
units / Industrial PCs

Technical Data Sheet

PROPERTY	UNIT	A PART	B PART
MATERIAL		Silicone	Silicone
Colour		Light grey	Orange
Density @ -23 °C	g/cm ³	2.2	2.2
Mixing Ratio	Weight or Volume	1:1	1:1
Hardness (7 days @ -23 °C and 50 % rel. H.)	Shore A	40	40
Viscosity (Brookfield)	Pas	2	1.9
Viscosity (Mixed) (Brookfield)	Pas	1.95	1.95
Tensile Strength (7 days @ -23 °C and 50 % rel. H.)	psi	117	117
Elongation at Break (7 days @ -23 °C and 50 % rel. H.)	%	30	30
Tear Strength (7 days @ -23 °C and 50 % rel. H.)	kN/m	4.56	4.56
Young Modulus (7 days @ -23 °C and 50 % rel. H.)	psi	722	722
Coefficient of Thermal Expansion (7 days @ -23 °C and 50 % rel. H.)			
Volumetric	1 x 10 ⁻⁶ /K	402	402
Linear	1 x 10 ⁻⁶ /K	134	134
Linear Shrinking (7 days @ -23 °C and 50 % rel. H.)	%	0.03	0.03
Pot Life	min	ca. 50	ca. 50
Curing Time @ 25 °C / 100 °C		4 hrs. / 6 min	4 hrs. / 6 min
Shelf Life (from Date of Manufacturing, unopened, @ < 30 °C)	Months	12	12
Flammability	UL 94	VO (5.6 mm)	VO (5.6 mm)
RoHS Conformity	2015 / 863 / EU	Yes	Yes
TECHNICAL			
Thermal Conductivity	W/mK	1.2	1.2
Operating Temperature	°C	- 70 bis + 250	- 70 bis + 250
Dielectric Strength	kV/mm	14	14
Volume Resistivity	Ohm - cm	1.8 x 10 ¹⁴	1.8 x 10 ¹⁴
Dielectric Constant	@ 1 kHz	4.53	4.53

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