

QSiI 550 2 part encapsulation and potting silicone

Description

QSiI 500 series are 100% silicone solids elastomer designed for electronic potting and encapsulation applications. The two-component system offers a flame retardant, thermally conductive, low modulus material that is readily repairable.

Key Features

- 100% solids
- Long pot life
- Low modulus and good elongation
- UL94 V0 listed in file No. E205830

Application

Potting electronics to provide environmental protection e.g. Sterilization units

Use and Cure Information

Mixing

In order to achieve optimum performance, the same lot number of A and B should be used. The A and B parts should be thoroughly mixed prior to catalyzation.

Mixing by hand: Catalyze the A part with the B part at the designated mix ratio by weight using a clean plastic or metal container of approximately 3 times the volume of the material and mix by hand. Accurate weighing of all components, on a suitable scale, is essential for optimal product performance when mixing by hand. Mix until the material is uniform with no visible striations.

Mixing and dispensing with automatic equipment: Use a mixing system that will properly mix the A and B parts at the designated ratio by weight.

De-aeration

Air trapped during mixing should be removed by vacuum at 29 inches of mercury. During the process, the material will expand, and intermittent evacuation may be required. Machine mixed material does not normally need to be de-aired.

Health & Safety

Safety Data Sheets available on request.

Packaging

CHT Encapsulating and potting compounds are available in a variety packaging including bulk containers. Please contact our sales department for more information.

Storage

This product is best when used within the "Use by Date". See product label and/or CoA for specific "Use by Date".

Product should be stored in its original, unopened container. Storage beyond the date specified on the label

does not necessarily mean that the product is no longer usable. In this case, the properties required for the intended use should be checked for quality assurance reasons.

Revision Date 02 Sep 2021
Revision No 2
Download Date 23 Mar 2022

Property

Uncured Product

Property	Test Method	Value
Color A		Beige
Color B		Black
Cure Profile		7 mins at 150°C
Cure Type		Addition
Density A	BS ISO 2781	1.41
Density B	BS ISO 2781	1.41
Gel Time at 25°C/77°F		130 min
Mix Ratio By Weight		1:1
Rheology		Liquid
Self Bonding		No
Viscosity Mixed	Brookfield	4000 cP

Cured Product

Property	Test Method	Value
7 minutes at 150°C		
Color		Grey
Elongation at Break	ISO 37	150 %
Hardness Shore A	ASTM D 2240-95	55
Max Working Temp		204 °C / 399 °F
Min Working Temp		-55 °C / -67 °F
Tear Resistance (N/mm)	BS ISO 34-1	5.73 N/mm / 33 ppi
Tensile Strength	ISO 37	3.52 N/mm² / 510 psi
Thermal Conductivity		~0.37 W/mK
UL 94V-0		Yes
UL File No.		E205830

Electrical Properties

Dielectric Constant	ASTM D-150	3.12
Dielectric Strength kV/mm	ASTM D-149	20.3 kV/mm / 516 V/mil
Dissipation Factor	ASTM D-150	0.003
Volume Resistivity (Ohms cm)	ASTM D-257	1.47E+15 ohms cm

Storage

Max Storage Temperature	38 °C / 100 °F
Shelf Life	24 mths

The content set out in the technical data sheet does not contain information upon which you should rely. It is provided for general information purposes only and does not constitute a product specification. You must obtain professional or specialist advice before taking any action based on the information provided in the technical data sheet.

CHT make reasonable efforts to ensure that information set out in the technical data sheet is complete, accurate, and up-to-date. CHT do not, however, make any representations, warranties or guarantees (whether express or implied) that information set out in the technical data sheet is complete, accurate, or up-to-date or that the product will be suitable for your requirements. You should carry out your own testing to determine the applicability of such information and whether the product will be suitable. CHT reserve the right to modify the technical data sheet at any time.

The CHT technical service department is available to offer further information and advice and should it be needed to look at modifying current products or custom formulate a new one to meet your specific requirements. Please contact the technical service department.

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