

# TECHNICAL DATA SHEET

## 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.

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### Property

#### Uncured Product

Property	Test Method	Value
Colour A Part		<b>Beige</b>
Colour B Part		<b>Black</b>
Cure Type		<b>Addition</b>
Density A	BS ISO 2781	<b>1.41</b>
Density B	BS ISO 2781	<b>1.41 g/cm<sup>3</sup></b>
Drying / Fixing Conditions		<b>7 mins at 150°C</b>
Gel Time at 25°C/77°F		<b>130 min</b>
Mix Ratio By Weight		<b>1:1</b>
Rheology		<b>Liquid</b>
Self Bonding		<b>No</b>
Viscosity Mixed mPas	Brookfield	<b>4000 mPas</b>

#### Cured Product

<b>7 minutes at 150°C</b>		
Colour		<b>Grey</b>
Elongation at Break (%)	ISO 37	<b>150 %</b>
Hardness Shore A	ASTM D 2240-95	<b>55</b>
Max Working Temp (°C)		<b>204 °C / 399 °F</b>
Min Working Temp (°C)		<b>-55 °C / -67 °F</b>
Tear Resistance (N/mm)	BS ISO 34-1	<b>5.73 N/mm / 33 psi</b>
Tensile Strength (N/mm <sup>2</sup> )	ISO 37	<b>3.52 N/mm<sup>2</sup> / 510 psi</b>
Thermal Conductivity (W/mK)		<b>~0.37 W/mK</b>
UL 94V-0		<b>Yes</b>
UL File No.		<b>E205830</b>

#### Electrical Properties

Dielectric Constant	ASTM D-150	<b>3.12</b>
Dissipation Factor	ASTM D-150	<b>0.003</b>
Volume Resistivity (Ohms cm)	ASTM D-257	<b>1.47E+15 ohms cm</b>

#### Storage

Max Storage Temperature		<b>38 °C / 100 °F</b>
Shelf Life (mths)		<b>24</b>

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.

**CHT Germany GmbH:** Postfach 12 80, 72002 Tübingen, Bismarckstraße 102, 72072 Tübingen, Germany  
Telephone: 07071/154-0, Fax: 07071/154-290, Email: info@cht.com, Homepage: www.cht.com / www.cht-silicones.com