TECHNICAL DATA SHEET

QSil 550
2 part encapsulation and potting silicone

Description

QSil 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

- Long pot life
- Low modulus and good elongation
- 275 C Max Working Temp, test method AFS1540B
- UL94 V0 listed in file No. E205830

Application

QSil 550 is designed for potting electronics to provide environmental protection (e.g. Sterilization units). Suitable for higher working temperatures.

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.

Property	Test Method	Value
Uncured Product		
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		
7 minutes at 150°C		
Color		**Gray**
Elongation at Break	ISO 37	**150 %**
Hardness Shore A	ASTM D 2240-95	**55**
Max Working Temp		**275 °C / 527 °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**

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