

Technical Data Sheet

QSil 563 Addition Cure Potting Material

PRODUCT DESCRIPTION

QSil 563 is a 100% silicone solids elastomer designed for electrical potting applications. The two-component system offers a hard, thermally conductive, low modulus material that is readily repairable.

KEY FEATURES

- 100% solids
- Excellent thermal conductivity

TYPICAL PROPERTIES

UNCATALYZED		
PROPERTY	QSil 563 A	QSil 563 B
Appearance	White	Yellow
Viscosity	4,000 cps	5,200 cps
Specific Gravity	2.07	2.13

CATALYZED	
MIX RATIO 1:1	
Gel Time at 25 °C *	140 minutes

* Gel time is defined as the time required for the material to become a solid or semi-solid.

CURED PROPERTIES	
15 minutes at 150 °C	
PROPERTY	RESULT
Durometer	46, Shore A
Tensile	120 psi
Elongation	55%

ELECTRICAL PROPERTIES	
PROPERTY	RESULT
Dissipation Factor	0.007
Dielectric Constant at 1,000 Hz	4.57
Volume Resistivity	6.52×10^{13} ohm-cm
Dielectric Strength	460 V/mil

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UL LISTED (FILE NUMBER QMFZ2.E205830)	
UL 94 V-0	3.0 mm

THERMAL PROPERTIES ***	
PROPERTY	RESULT
Thermal Conductivity ***	~ 0.88 W/m-K
Useful Temperature Range	-55 °C – 204 °C

*** Results based on hot wire method.

MIXING

In order to achieve optimum performance, the same lot number of QSil 563 A and QSil 563 B should be used.

QSil 563 A and QSil 563 B should be thoroughly mixed prior to catalyzation.

Mixing by hand:

Catalyze QSil 563 A with QSil 563 B at a 1:1 ratio by weight in 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.

Mixing and dispensing with automatic equipment:

Use a mixing system that will properly mix the QSil 563 A and QSil 563 B at a 1:1 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.

STORAGE AND SHELF LIFE

This product is best when used within 24 months from date of manufacture. See product label and/or CoA for specific "Use By Date"

Product should be stored in its original, unopened container in an environment that does not exceed 38 °C (100 °F).

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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DISCLAIMER

The technical data listed is provided for reference only and is not intended as product specifications. CHT USA's team accepts opportunities to either modify specifications in a current product or custom formulate a new one to meet your requirements. For sales and technical assistance, please contact us at: **(804) 271-9010** or **1-800-852-3147**.

Please be sure to visit our website daily for our complete product portfolio, new product introductions and more:

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