Technical Data Sheet

QSil 550
Addition Cure Potting Material

PRODUCT DESCRIPTION
QSil 550 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
- Long gel time
- Good elongation
- Low modulus

TYPICAL PROPERTIES

UNCATALYZED		
PROPERTY	**QSil 550 A**	**QSil 550 B**
Appearance	Beige	Black
Viscosity	4,000 cps	4,000 cps
Specific Gravity	1.41	1.41

CATALYZED	
MIX RATIO 1:1	
Gel time at 25°C *	130 minutes

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

CURED PROPERTIES	
7 minutes @ 150°C	
PROPERTY	**RESULT**
Durometer, Shore A	55
Tensile	510 psi
Elongation	150 %
Tear	33 ppi
Useful temperature range	- 55°C – 204°C

ELECTRICAL PROPERTIES	
PROPERTY	**RESULT**
Dissipation factor	0.003
Dielectric constant @ 1000Hz	3.12
Volume resistivity	1.47 X 10^{15} ohm-cm

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

THERMAL PROPERTIES **	
PROPERTY	**RESULT**
Thermal conductivity**	~ 0.37 W/m-K

** Results based on similar material.

MIXING

In order to achieve optimum performance the same lot number of QSil 550 A and QSil 550 B should be used.

QSil 550 A and QSil 550 B should be thoroughly mixed prior to catalyzation.

Mixing by hand:
Catalyze QSil 550 A with QSil 550 B at a 1:1 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 QSil 550 A and QSil 550 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

If QSil 550 A and QSil 550 B are stored in their original unopened containers, in an environment that does not exceed 38°C (100°F) then QSi will warranty the material for a period of 12 months from the date of shipment.

DISCLAIMER

The technical data listed is provided for reference only and is not intended as product specifications. QSi has the capability to customize products as requested. For sales and technical assistance please contact customer service at **(804) 271-9010** or **1-800-852-3147**.

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