



Technical Data Sheet

QSi 553

Addition Cure Potting Material

PRODUCT DESCRIPTION

QSi 553 is a 100% silicone solids elastomer designed for electronic potting applications. The two-component system offers a flame retardant, thermally conductive, low modulus material that is readily repairable.

KEY FEATURES

- 100% solids - no solvents
- Long pot life
- Low modulus
- Good elongation
- UL listed

TYPICAL PROPERTIES

UNCATALYZED		
PROPERTY	QSi 553 A	QSi 553 B
Appearance	Beige	Black
Viscosity	6,000 cps	6,000 cps
Specific Gravity	1.63	1.63

CATALYZED PROPERTIES	
MIX RATIO 1:1	
PROPERTY	RESULT
Work life at 25°C *	100 minutes

* Work life is defined as the time required for the material to reach a viscosity of 25,000 cps.

CURED PROPERTIES	
15 minutes at 150°C	
PROPERTY	RESULT
Durometer, Shore A	45
Tensile	250 psi
Elongation	240 %
Tear	45 ppi
100% modulus	180 psi



Technical Data Sheet

ELECTRICAL PROPERTIES	
PROPERTY	RESULT
Dissipation factor	0.009
Dielectric constant @ 1000Hz	3.08
Volume resistivity	4.02 X 10 ¹⁴ ohm-cm
Comparative Tracking Index (CTI)	600 volts
Performance Level Category (PLC)	0

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

THERMAL PROPERTIES **	
PROPERTY	RESULT
Thermal conductivity**	~ 0.68 W/m-K
Useful temperature range	- 55°C – 240°C

** Hot wire method.

MIXING

In order to achieve optimum performance the same lot number of QSi 553 A and QSi 553 B should be used.

QSi 553 A and QSi 553 B should be thoroughly mixed prior to catalyization.

Mixing by hand:

Catalyze QSi 553 A with QSi 553 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.

Mixing and dispensing with automatic equipment:

Use a mixing system that will properly mix the QSi 553 A and QSi 553 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.



Technical Data Sheet

STORAGE AND SHELF LIFE

If QSi 553 A and QSi 553 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.

Please be sure to visit our website daily for our complete product portfolio, new product introductions and more! www.quantumsilicones.com

Quantum Silicones Headquarters
7820 Whitepine Road
Richmond, VA 23237

Manufacturing, Research and Development Facility
8021 Reycan Road
Richmond, VA 23237

Phone: 804-271-9010
Fax: 804-271-9055
Toll Free: 800-852-3147