



# Technical Data Sheet

## QSi 940

40 Shore A, Condensation Cure for Potting Applications

### PRODUCT DESCRIPTION

QSi 940 is a special purpose, two-component, condensation cure, siloxane elastomer that exhibits excellent release properties unless a primer is used, which results in excellent adhesion. The material can also be used for applications that have wide temperature range requirements.

The two applicable catalysts are 0.5% DBT by weight and 10% Deep Section Catalyst by weight which gives a work life of approximately 45 minutes and a tack free time of two hours. The 0.5% catalyst level can be increased or decreased to obtain desired cure speed. Cure speed can be accelerated by adding DBT catalyst in increments of 0.1%.

### KEY FEATURES

- Excellent release properties unless a primer is used
- Variable cure speed

### TYPICAL PROPERTIES

UNCATALYZED			
TEST	QSi 940	DBT Catalyst	Deep Section Catalyst
Appearance	White	Clear/light yellow	Beige
Viscosity	12,000 cps	N/A	6,500 cps
Specific Gravity	1.20	1.04	1.47
Rheology	Flowable	N/A	N/A

CATALYZED	
MIX RATIO 10:1 with Deep Section Catalyst or 100: 0.5 for DBT Catalyst	
PROPERTY	RESULT
Tack free time	2 hours
Gel time at 25°C *	45 minutes

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

CURED PROPERTIES	
24 hours @ room temperature	
PROPERTY	RESULT
Durometer, Shore A	40
Tensile	189 psi
Elongation	170 %
Tear	20 ppi
Useful temperature range	- 115°C – 204°C



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### **MIXING**

If using QSi Deep Section Catalyst as the curing agent, it should be thoroughly mixed prior to use.

QSi 940 should be catalyzed by weight with the appropriate amount of curing agent. A concentration of 0.5% DBT catalyst or 10% Deep Section Catalyst will provide a gel time approximately 45 minutes and a tack free time of 2 hours. Cure can be accelerated by adding DBT catalyst in increments of 0.1%.

Material should be mixed in a clean, compatible metal or plastic container. The volume of the container should be 4 – 5 times the volume of the material to be catalyzed. Thoroughly mix using clean tools, scraping the bottom and the side of the container to produce a homogeneous mixture. **CAUTION:** Avoid prolonged mixing with power tools as excess heat may build up and shorten the expected work life of the material.

### **DE-AERATION**

Air trapped during mixing should be removed to eliminate voids in the cured product. Vacuum de-airing may be necessary to completely remove all entrapped air bubbles. To ensure proper de-airing, subject the mixed material to 29 inches of mercury. When using QSi 940 for potting, a de-aeration step may be necessary after pouring to avoid capturing air in complex assemblies.

### **STORAGE AND SHELF LIFE**

If QSi 940 is stored in an environment that does not exceed 4°C (40°F) then QSi will warranty the material for a period of 6 months from the date of shipment. If QSi 940 is stored in an environment that does not exceed 27°C (80°F) then QSi will warranty the material for a period of 3 months from the date of shipment.



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### **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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new product introductions and more! [www.quantumsilicones.com](http://www.quantumsilicones.com)*

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