# **Technical Data Sheet**

8021 Reycan Road Richmond, VA 23237 Phone: 804-271-9010 FAX: 804-271-9055 **TOLL FREE: 800-852-3147** 

**OSil 440 Condensation Cure Silicone Adhesive** 

## PRODUCT DESCRIPTION

QSil 440 is a 100% silicone solids elastomer designed for electronics and industrial adhesive applications. The two component system offers quick curing, low modulus, self bonding material. This material also has good primerless adhesion to a variety of substrates.

# **KEY FEATURES**

- 100% solids
- Fast curing
- Low modulus
- Primerless adhesion to a variety of substrates

## TYPICAL PROPERTIES

UNCATALYZED			
PROPERTY	QSil 440	QSil Cat 440	
Appearance	Beige/White	Clear	
Viscosity	175,000 cps	250 cps	
Specific Gravity	1.50	0.97	

CATALYZED 24 hours @ 25C			
MIX RATIO 100:8 by weight, 10:1 by volume			
PROPERTY	RESULT		
Durometer, Shore A	45		
Gel time*	6-10 minutes		
Adhesion to aluminum	Cohesive failure		
Useful temperature range	-55 – 150C		

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

## ADHESION

Ensure the surface is clean and free of any foreign substances. Clean the surface of the substrate to be adhered to with a suitable solvent for best results.

# **MIXING**

In order to achieve optimum performance the same lot number of QSil 440 and QSil Cat 440 should be used.

QSil 440 and QSil Cat 440 should be thoroughly mixed prior to catalyzation.

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# Mixing by hand

QSil 440 is catalyzed with QSil Cat 440 at a ratio of 100:8 by weight. In order to achieve optimum performance the same lot number of QSil 440 and QSil Cat 440 should be used.

Combine 100 parts of QSil 440 with 10 part of QSil Cat 440 by weight into a clean, compatible container. The volume of the container should be 3-4 times the volume of the material to be mixed. Mix by hand or with mixing equipment until a homogeneous mixture is obtained. When hand mixing; accurate weighing of components on a suitable scale is essential for optimal product performance. This material has a fast gel time, so hand mixing requires quick use of the material once it is catalyzed.

## Mixing and dispensing with automatic equipment

QSil 440 is catalyzed with QSil Cat 440 at a 10:1 ratio by volume. Use a system that will properly mix the A and B components.

## **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. Typically after releasing the vacuum 2-3 times the mass will collapse on itself at which time the vacuum should be left on for an additional 2-4 minutes.

Machine mixed material does not normally need to be de-aired.

## STORAGE AND SHELF LIFE

If QSil 440 and QSil Cat 440 are stored in their original unopened containers, in an environment that does not exceed 38C (100F) then QSi will warranty the material for a period of 6 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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