Technical Data Sheet

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QSil 213

Transparent Liquid Silicone Rubber

PRODUCT DESCRIPTION

QSil 213 is a two component clear liquid silicone, which will cure at room temperature or at elevated temperatures. The chemical composition provides hydrolytic stability and reversion resistance. This product is ideal for potting complex parts because it provides electrical insulation and shock resistance.

KEY FEATURES

- Suitable for automatic dispensing or hand mixing
- Low viscosity
- Contains no solvents
- Non-yellowing catalyst system
- Designed for superior adhesion with use of primer

TYPICAL PROPERTIES

UNCATALYZED		
TEST	**QSil 213A**	**QSil 213B**
Appearance	Clear	Clear
Viscosity	4,000 cps	700 cps
Specific Gravity	1.02	1.00

CATALYZED	
MIX RATIO 10:1 by weight	
Color	Clear, colorless
Consistency	Easily pourable
Gel time*	4 hours

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

CURED PROPERTIES	
60 minutes @ 100C/212F	
PROPERTY	**RESULT**
Durometer, Shore A	40
Tensile	750 psi
Elongation	100%
Linear Shrinkage	< 0.1 %
Refractive index	1.406

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ELECTRICAL PROPERTIES	
Dielectric strength	500 V/mil
Dielectric constant @ 1000 Hz	2.69
Dissipation factor @ 1000 Hz	0.0006
Volume resistivity	1.7 X 10^{15} ohm-cm

THERMAL PROPERTIES	
Useful temperature range	-55 – 204C
Thermal conductivity	0.18 W/m-K
Coefficient of thermal expansion, cm/cm, C	27.5 X 10^{-5}
Specific heat	0.3 cal/g-C

MIXING

QSil 213A and QSil 213B should be thoroughly mixed prior to catalyzation.

QSil 213A is catalyzed with QSil 213B at a 10:1 ratio by weight. In order to achieve optimum performance the same lot number of QSil 213A and QSil 213B should be used.

Combine ten parts of QSil 213A with one part of QSil 213B 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. Accurate weighing of all components, on a suitable scale, is essential for optimal product performance when mixing by hand.

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 213A and QSil 213B 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 12 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**.

Visit our website at www.quantumsilicones.com.