



Technical Data Sheet

QSi 216

Transparent, Liquid Silicone Rubber

PRODUCT DESCRIPTION

QSi 216 is a two-part, clear, liquid silicone which will cure at room temperature or at elevated temperatures. It has a low viscosity, which allows for ease of flow around complex parts, providing electrical insulation and shock resistance.

KEY FEATURES

- Convenient 10:1 mixing ratio for use in automatic dispensing equipment or hand mixing
- Contains no solvents
- Non-yellowing catalyst system
- Chemical composition provides hydrolytic stability and reversion resistance

TYPICAL PROPERTIES

UNCATALYZED		
TEST	QSi 216 A	QSi 216 B
Color	Clear	Clear
Viscosity	4,000 cps	500 cps
Specific Gravity	1.02	1.01

CATALYZED	
MIX RATIO 10:1 by weight	
Color	Transparent, colorless
Consistency	Easily pourable
Gel time at 25°C *	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 at 100°C	
PROPERTY	RESULT
Durometer, Shore A	40
Tensile	750 psi
Elongation	100 %
Linear shrinkage	< 0.1 %
Refractive index	1.406



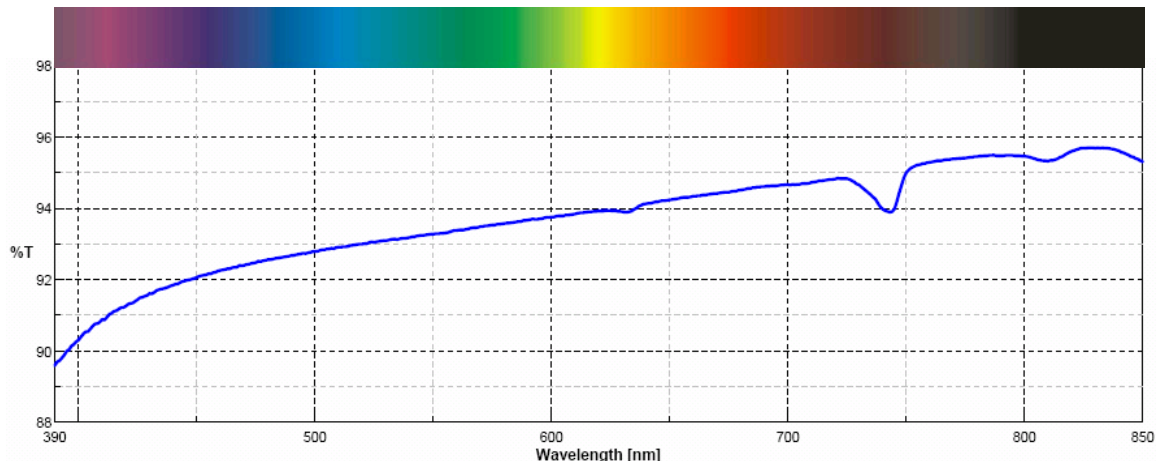
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ELECTRICAL PROPERTIES	
Dielectric strength	500 V/mil
Dielectric constant @ 1000 Hz	2.69
Dissipation factor @ 1000 Hz	0.0006
Volume resistivity	1.7×10^{15} ohm-cm

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

OPTICAL PROPERTIES	
Refractive index, 589 nm	1.405
Transmittance, 400 nm	90.3 %

Transmittance @ 1 cm path length





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MIXING

QSi 216 A is catalyzed with QSi 216 B at a 10:1 ratio by weight. In order to achieve optimum performance the same lot number of QSi 216 A and QSi 216 B should be used.

Combine ten parts of QSi 216 A with one part of QSi 216 B 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

This product is best when used within 24 months from date of manufacture. See product label and/or CoA for specific "Use By Date".

Product should be stored in its original, unopened container in an environment that does not exceed 38°C (100°F).

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case, the properties required for the intended use should be checked for quality assurance reasons.

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*

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