Technical Data Sheet

QSil 212
60, Shore A, Specialty Silicone Coating

PRODUCT DESCRIPTION
QSil 212 is a low viscosity, high strength, two-component, addition cure silicone elastomer 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
- Low viscosity
- Low linear shrinkage
- Transparent
- Non-Bleed
- High Strength
- Great adhesion to many substrates using QSil Primer #7

TYPICAL PROPERTIES

UNCATALYZED		
TEST	**QSil 213 A**	**QSil 213 B**
Appearance	Transparent	Transparent
Viscosity	10,000 cps	3,000 cps
Specific Gravity	1.00	1.00

CATALYZED	
MIX RATIO 1:1 by weight	
Gel Time at 25 °C *	60 minutes

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

CURED PROPERTIES	
PROPERTY	**RESULT**
Durometer, 10 minutes at 125 °C	60, Shore A
Durometer, 3 minutes at 110 °C	50, Shore A
Tensile	1,250 psi
Elongation	120%
Tear B	25 ppi

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ADDITIONAL PROPERTIES	
Thermal Conductivity	0.18 W/m-K
Refractive Index, 589 nm	1.41
Useful Temperature Range	-50 °C – 204 °C
Volume Resistivity	1.7 x 10^{15} ohm-cm

CURE CHARACTERISTICS
QSil 212 A is catalyzed with QSil 212 B at a 1:1 ratio by weight. In order to achieve optimum performance, the same lot number of QSil 212 A and QSil 212 B should be used.

The curing process begins as soon as the catalyst is mixed with the base. The material will cure as described in the data above under normal temperature (25 °C). Because this system is sensitive to heat, cure speed will increase with increased temperature. In addition, if the product is to be used with aggressive resins, such as high styrene polyester resin, it is recommended that the rubber be allowed to cure for 48 hours.

MIXING
CHT USA recommends that the catalyzed material be tested on a small area of the mold prior to use.

Combine one part of QSil 212 A with one part of QSil 212 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. When hand mixing, accurate weighing of components on a suitable scale is essential for optimal product performance.

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.

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DISCLAIMER
The technical data listed is provided for reference only and is not intended as product specifications. CHT USA's team accepts opportunities to either modify specifications in a current product or custom formulate a new one to meet your requirements. For sales and technical assistance, please contact us 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:

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