



Technical Data Sheet

QSi 12

Quantum Silicones' Clear Low Viscosity for Potting Applications

Product Description

QSi 12 is a clear, transparent, low viscosity, 2-component liquid silicone material which cures at room temperature and is primarily intended for potting applications. This material is typically mixed at a 100:5 ratio. Once mixed, the material is self-leveling and will have a useful work-life of approximately 2 hours. The material will be fully cured after 24-48 hours at room temperature. This material can also be vulcanized at elevated temperatures (up to 70C) to increase the cure speed.

Key Features

- Low viscosity
- Variable cure speed, with mild heat
- Transparency
- Room temperature cure
- Good adhesion with use of a primer

Typical Properties

	QSi 12	QSi 12C
Color	Clear, Slight Haze	Clear, Slight Yellow
Consistency	Low Viscosity	Very Low Viscosity
Viscosity Base Component, cps	1,400	15
Solvent	None	Mineral Spirits
Specific Gravity, g/cm ³	1.00	0.85

Cured properties with 5% Curing Agent

Appearance	Transparent
Work Life, minutes	60-180
Durometer, ShoreA, 24 Hour	12
Durometer, ShoreA 72 Hour	18
Specific Gravity, g/cm ³	1.00
Dielectric Strength, volts/mil	400
Dielectric Constant, 1 kHz	3.0
Dissipation Factor, 1 kHz	.001
Volume Resistivity, ohm-cm	1 x10 ¹³
Useful Temperature Range	-60 – 204C

Please note that the properties listed above are to be regarded as typical. They are not intended for use in preparing specifications.

Instructions for Use

Mixing

Select a mixing container 4-5 times larger than the volume of silicone rubber compound to be used. Weight out the QSil 12 base compound and add the appropriate amount of curing agent. 5% QSil 12C by weight will provide a work time or pot life of about two hours and a cure time of 24 hours. 5% QSil 12C is the most commonly used concentration. With clean tools, thoroughly mix the QSil 12 base compound and the curing agent, scraping the sides and bottom of the container carefully to produce a homogeneous mixture.

De-aeration

Air trapped during the mixing should be removed to eliminate voids in the cured product. Degassing is usually complete about two minutes after frothing ceases. When using the QSil 12 for potting, a deaeration step may be necessary after pouring to avoid capturing air in complex assemblies.

Bonding

If adhesion is an important application requirement, QSil 12 silicone rubber compounds require a primer to bond to non-silicone surfaces. Thoroughly clean the substrate with a non-oily solvent such as naphtha or methyl ethyl ketone (MEK) and let dry. Then apply a uniform thin film of a suitable silicone primer to air dry for one hour or more.

Not for Product Specification

The technical data listed herein is provided as a reference only and **is not** intended as sales specifications. For sales and technical assistance or for product recommendations, please call 1-800-852-3147.

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