



Technical Data Sheet

QGel 311

General Purpose Silicone Gel

PRODUCT DESCRIPTION

QGel 311 is a clear, fast cure, tough, moderately cross-linked silicone polymer. Silicone gels are used to provide protection from vibration and thermal or mechanical shock. Silicone gels also provide excellent moisture protection.

KEY FEATURES

- One to one mix ratio
- 90 minute room temperature cure
- 5 minute cure @ 150°C
- Soft, but resilient gel
- Designed for automatic mixing and dispensing

TYPICAL PROPERTIES

UNCATALYZED		
TEST	QGel 311 A	QGel 311 B
Appearance	Transparent	Transparent
Viscosity	1,000 cps	1,000 cps
Specific Gravity	0.97	0.97

CATALYZED	
MIX RATIO 1:1	
TEST	RESULT
Gel Time at 25°C *	3 minutes

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

CURED PROPERTIES	
Cure Profile	5 minutes at 150°C
	10 minutes at 100°C
	90 minutes at 25°C
Penetration, 30 minutes at 150°C	5 - 9 mm

ADDITIONAL PROPERTIES	
Service Temperature Range	-55°C - 204°C
Adhesion	Silicone gels have a tacky surface and will form a mechanical bond to most substrates.
Electrical Properties	Excellent dielectric strength



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MIXING

QGel 311 should be thoroughly mixed using a 1:1 ratio by weight or by volume. Once the components are mixed the curing process begins. The gel time of the mixed material is listed above under typical properties. Fast curing gels (less than 30 minute gel time) should be dispensed utilizing automated mix and dispense equipment. Mixing equipment is recommended for this grade.

DE-AERATION

Air trapped during mixing should be removed to eliminate voids in the cured product. Vacuum de-airing may be necessary to completely remove all entrapped air bubbles. To ensure proper de-airing, subject the mixed material to 29 inches of mercury.

STORAGE AND SHELF LIFE

If QGel 311 A and QGel 311 B are stored in their original unopened containers, in an environment that does not exceed 38°C (100°F) then QSi will warranty the material for a period of 12 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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