



Technical Data Sheet

8021 Reycan Road
Richmond, VA 23237
Phone: 804-271-9010
FAX: 804-271-9055
Toll free: 800-852-3147

QGel 900 High Refractive Index Silicone Gel

PRODUCT DESCRIPTION

QGel 900 is a clear, very soft, tough moderately cross-linked silicone polymeric elastomer offering exceptional clarity for optical transmission applications. This gel also provides self healing protection to sensitive devices isolating them from shock, vibration and CTE stress. This particular silicone gel also provides excellent moisture protection and equally outstanding electrical properties over a broad temperature range.

KEY FEATURES

- One to one mix ratio
- Soft but resilient gel
- Dispensing equipment not necessary
- Good adhesion with Primer #5

TYPICAL PROPERTIES

UNCATALYZED		
TEST	A	B
Appearance	Transparent	Transparent
Viscosity	1455 cps	1645 cps
Specific Gravity	1.00 g/cm ³	1.00 g/cm ³

CATALYZED	
MIX RATIO 1:1	
TEST	RESULT
Gel Time, 25C	120 minutes

CURED PROPERTIES	
Cure Profile	30 minutes at 150C
	60 minutes at 100C
	24 hours at 25C
Penetration, 60 minutes at 150C	5 - 9 mm

ADDITIONAL PROPERTIES	
Service Temperature Range	-55C – 240C
Adhesion	Silicone gels have a tacky surface and will form a mechanical bond to most substrates. Will form a covalent bond when Primer #5 is used.
Electrical Properties	Excellent dielectric strength



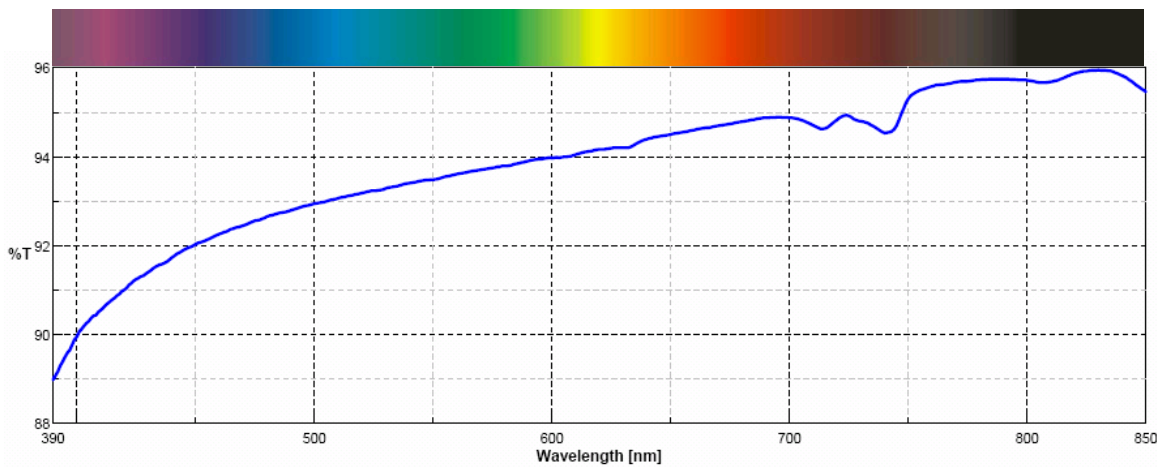
Technical Data Sheet

8021 Reycan Road
Richmond, VA 23237
Phone: 804-271-9010
FAX: 804-271-9055
Toll free: 800-852-3147

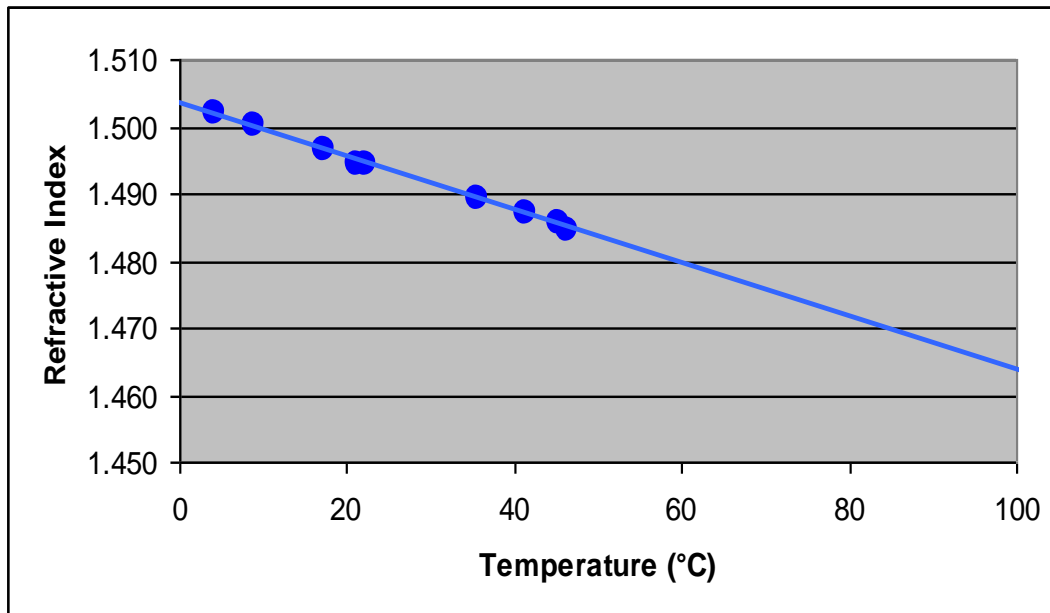
OPTICAL PROPERTIES

Refractive Index, 589 nm	1.43
Refractive Index vs. Temperature, 589 nm	$3.8 \times 10^{-4} \text{ C}$
Transmittance, 400 nm	89.95%

Transmittance, 1cm pathlength



Refractive Index vs. Temperature





Technical Data Sheet

8021 Reycan Road
Richmond, VA 23237
Phone: 804-271-9010
FAX: 804-271-9055
Toll free: 800-852-3147

MIXING

QGel 900 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.

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 insure proper de-airing, subject the mixed material to 29 inches of mercury.

STORAGE AND SHELF LIFE

If QGel 900A and QGel 900B are in an environment that does not exceed 25C (77F) then QSi will warranty the material for a period of one year 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.

Visit our website at www.quantumsilicones.com.