Technical Data Sheet

QSil 602

Optically Clear, Addition Cure Silicone Elastomer

PRODUCT DESCRIPTION

QSil 602 is an optically clear, two-part, addition cure silicone elastomer that has excellent adhesion to a wide variety of substrates, including glass, polycarbonate and acrylic when used with a primer.

KEY FEATURES

- Clarity
- Adhesion to polycarbonate and acrylic with primer
- Material must be heat cured

TYPICAL PROPERTIES

UNCATALYZED		
PROPERTY	**QSil 602 A**	**QSil 602 B**
Appearance	Clear	Clear
Viscosity	70,000 cps	1,900 cps
Specific Gravity	1.03	1.01

CATALYZED	
MIX RATIO 10:1	
Work life at 25°C *	> 6 hours

* Work life for this material is defined as the time required for the material to reach a viscosity of 250,000 cps.

HEAT CURED PROPERTIES	
13 hours @ 220°F	
PROPERTY	**RESULT**
Durometer, Shore A	35
Tensile	417 psi
Elongation	320 %
Tear	44 ppi
Young's Modulus	327 psi
Cure time for optimal adhesion	13 hours @ 220°F
Useful temperature range	- 55°C – 204°C

CURING*	
Time	**Temperature, °C**
60 minutes	150°C
120 minutes	120°C

*Material is not designed to cure at room temperature. Material may not reach full physical properties including adhesion, if cured below the minimum recommended cure temperature. These are recommended cure times only with actual cure times and temperatures dependent on the quantity of material being used and the shape of the part being made.

ADHESION	
Cohesive failure to polycarbonate and acrylic when a primer is used	
PROPERTY	**RESULT**
Adhesion to polycarbonate, lap shear	408 psi
Peel failure	> 95 % cohesive
Peel (primed)	> 85 psi
Lap shear (primed)	> 290 psi

ADHESION

Ensure that the surface is clean and free of any foreign substances. Clean the surface of the substrate to be adhered to with a suitable solvent to obtain best results.

MIXING

In order to achieve optimum performance the same lot number of QSil 602 A and QSil 602 B should be used.

Catalyze QSil 602 A with QSil 602 B at a 10:1 ratio by weight. Use a clean plastic or metal container of approximately 3 times the volume of the material and mix by hand. 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.

Machine mixed material does not normally need to be de-aired.

STORAGE AND SHELF LIFE

If QSil 602 A and QSil 602 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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