

## Preliminary Technical Data Sheet

### SilSo Clear 21002 Transparent, Liquid Silicone Rubber

#### PRODUCT DESCRIPTION

SilSo Clear 21002 is a two-part, transparent and colorless, liquid silicone which will cure at elevated temperature.

#### KEY FEATURES

- Convenient 1:1 mixing ratio for use in automatic dispensing equipment or hand mixing
- Contains no solvents
- Non-yellowing catalyst system
- Chemical composition provides hydrolytic stability and reversion resistance
- Stable transmittance over time

#### TYPICAL PROPERTIES

UNCATALYZED		
TEST	SilSo Clear 21002 A	SilSo Clear 21002 B
Color	Clear	Clear
Viscosity	17,000 cps	10,000 cps
Specific Gravity	1.03	1.03

CATALYZED	
MIX RATIO 1:1 by weight	
Color	Transparent, colorless
Consistency	Easily pourable
Gel Time at 25 °C *	>24 hours

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

CURED PROPERTIES	
30 minutes at 150 °C ASTM Sheet	
PROPERTY	RESULT
Durometer	67, Shore A
Tensile	1,350 psi
Elongation	110%
Linear Shrinkage	< 0.1%

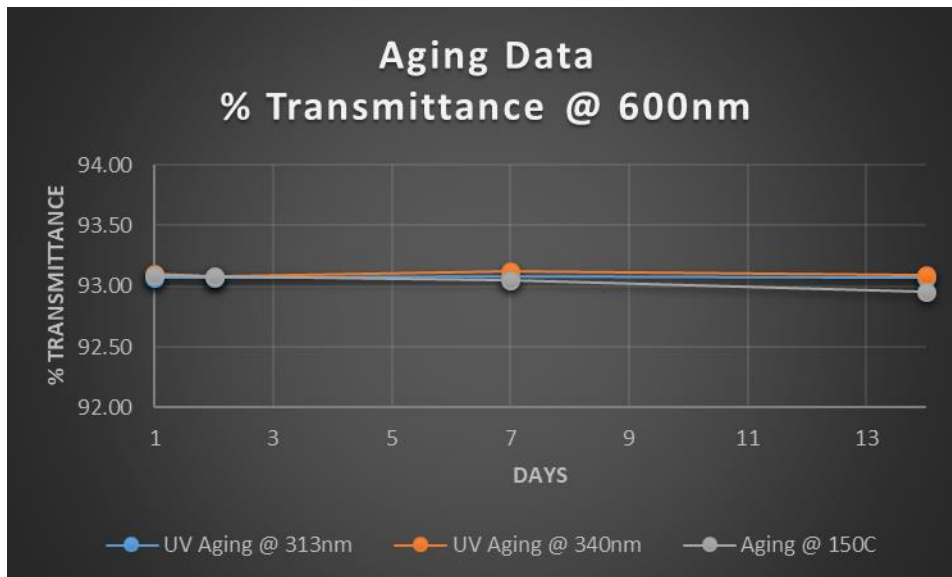
## Preliminary Technical Data Sheet

ELECTRICAL PROPERTIES (Typical Properties)	
Dielectric Strength	475 V/mil
Volume Resistivity	1.0 x 10 <sup>15</sup> ohm-cm

THERMAL PROPERTIES (Typical Properties)	
Useful Temperature Range	-55 °C – 204 °C
Thermal Conductivity	0.18 W/m-K

OPTICAL PROPERTIES (Typical Properties)	
Refractive Index, 589 NM	1.41
Transmittance, 760 nm	93.1
Transmittance, 600 nm	93.0
Transmittance, 450 nm	92.8
Transmittance, 380 nm	92.3

Cure Time, injection molded @150C	
3 x 12 x 125 mm	<60 seconds



## Preliminary Technical Data Sheet

---

### MIXING

SilSo Clear 21002 A is reacted with SilSo Clear 21002 B at a 1:1 ratio by weight. In order to achieve optimum performance, the same lot number of SilSo Clear 21002 A and SilSo Clear 21002 B should be used.

This material is ideal for machine dispensing and injection molding. If mixing by hand, combine one part of SilSo Clear 21002 A with one part of SilSo Clear 21002 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. Accurate weighing of all components, on a suitable scale, is essential for optimal product performance when mixing by hand.

### 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.

### 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:

[www.silicone-experts.cht.com](http://www.silicone-experts.cht.com)

[www.quantumsilicones.com](http://www.quantumsilicones.com)

**CHT USA - Richmond**, 7820 Whitepine Road, Richmond, VA 23237

Manufacturing and R&D Facility, 8021 Reycan Road, Richmond, VA 23237