

## SilSo Clear 21002 2 Part Optically Clear Liquid Silicone Rubber

Description	Property	Test Method	Value	
<b>Uncured Product</b>				
<p>This is a two component silicone elastomer which crosslinks through polyaddition reaction. Particularly well suited for LSR applications and when processing with injection moulding equipment.</p> <p><b>Key Features</b></p> <ul style="list-style-type: none"> <li>Convenient mixing 1:1 ratio for use in automatic dispensing equipment or hand mixing</li> <li>Contains no solvents</li> <li>Non-yellowing catalyst system</li> <li>Stable transmittance over time</li> </ul> <p><b>Key Applications</b></p> <ul style="list-style-type: none"> <li>Injection molding</li> <li>Optical / magnifying lenses</li> <li>LED modules</li> <li>Solar collection products</li> </ul> <p><b>Application</b></p> <p>SilSo Clear 21002 is designed for optical injection moulding applications such as lenses, lightguides and LEDs.</p> <p><b>Use and Cure Information</b></p> <p>Mix components A and B in accordance with the mix ratio shown opposite according to weight. The material is usually processed with liquid injection moulding machines.</p> <p>Crosslinking and the speed of cure can be controlled by reducing the temperature to slow down the reaction or increasing the temperature to speed it up.</p> <p>A detailed rheometer report can be made available upon request.</p> <p><b>Inhibition of the cure</b></p> <p>Certain substances may impair or even completely prevent the curing behaviour of addition crosslinking silicone. Typical indications are sticky surfaces between silicone and contact surfaces.</p> <p>The following substances are particularly critical:</p> <ul style="list-style-type: none"> <li>substances containing nitrogen (amines, polyurethanes, epoxy resins)</li> <li>substances containing sulphur (polysulphides, polysulphones, natural and synthetic rubbers (EPDM))</li> <li>organometal compounds (organotin compounds, vulcanisates and hardeners of condensation crosslinking silicones)</li> </ul> <p><b>Health &amp; Safety</b></p> <p>Please observe our EC safety data sheets and the safety remarks on our container labels when handling our products. The dangerous goods regulations and the accident prevention regulations of the professional associations must be particularly observed. Keep the EC safety data sheet of the applied product at hand since it provides you with useful instructions for the safe use and disposal of the product as well as for actions to be taken in case of accidents</p> <p>Safety Data Sheets available on request.</p>	Color A		Clear	
	Color B			Clear
	Cure Type			Addition
	Density A	BS ISO 2781		1.03
	Density B	BS ISO 2781		1.03
	Mix Ratio By Weight			1:1
	Pot Life mins at 23°C/73°F			> 24 hours mins
	Self Bonding			No
	Viscosity A	Brookfield		17,000 cP
	Viscosity B	Brookfield		10,000 cP
Viscosity Mixed	Brookfield		13,500 cP	
<b>Cured Product</b>				
CTE Volumetric ppm/°C			960 ppm/°C	
Color			Transparent, colorless	
Density	BS ISO 2781		1.03 g/cm <sup>3</sup>	
Elongation at Break	ISO 37		110 %	
Hardness Shore A	ASTM D 2240-95		67	
Linear Coefficient of Thermal Expansion (ppm/°C)			320 ppm/°C	
Max Working Temp			204 °C / 399 °F	
Min Working Temp			-55 °C / -67 °F	
Refractive Index			1.41	
Tensile Strength	ISO 37		9.31 N/mm <sup>2</sup> / 1350 psi	
Thermal Conductivity			0.18 W/mK	
<b>Electrical Properties</b>				
Dielectric Breakdown (kV/mm)			< 0.1% kV	
Dielectric Strength kV/mm	ASTM D-149		18.7 kV/mm / 475 V/mil	
Volume Resistivity (Ohms cm)	ASTM D-257		1.0E + 15 ohms cm	
<b>Storage</b>				
Max Storage Temperature			38 °C / 100 °F	
Shelf Life			24 mths	

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