

## SilSo Cool 21311 2-part thermally conductive encapsulant

Description	Property	Test Method	Value
This is a two-component, 100% silicone solids, thermally conductive elastomer designed for electronic potting and roller applications.	<b>Uncured Product</b>		
<b>Key Features</b>	Appearance		<b>Viscous liquid</b>
<ul style="list-style-type: none"> <li>Flame retardant</li> <li>High thermal conductivity</li> <li>Low viscosity</li> <li>Electrically insulating</li> </ul>	Color A		<b>Off white</b>
<b>Application</b>	Color B		<b>Grey</b>
TIM automotive, EV and electronics potting	Density A	BS ISO 2781	<b>2.82</b>
<b>Use and Cure Information</b>	Density B	BS ISO 2781	<b>2.82</b>
<b>IMPORTANT:</b>	Mix Ratio By Weight		<b>1:1</b>
The 'A' part of the product contains the platinum catalyst, great care should be taken when using automatic dispensing equipment. Please ensure that it is not contaminated by residual hydride containing rubber in the dispensing equipment, as curing will result. If in doubt, it's advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.	Pot Life mins at 23°C/73°F		<b>&gt;50 mins</b>
<b>Mixing</b>	Self Bonding		<b>No</b>
Both the 'A' and 'B' parts should be well stirred to ensure the material is uniform and any settled the fillers have been remixed. In order to achieve optimum performance, the same "A" and "B" side lot number should be used.	Viscosity A	Brookfield	<b>23900 cP</b>
Place the required amount of 'A' and 'B' parts by weight at the mix ratio shown opposite, in a clean plastic or metal container of approximately 3 times their volume, and mix until the color of the mixture is uniform. For best results, we recommend degassing. Degas by intermittent evacuation, the larger volume of the mixing vessel helps prevent overflow during this operation. In the case of automatic dispensing with static mixing head, the two components should be degassed before processing. Recommended vacuum conditions are 30-50 mbar intermittently over 5-10 minutes. Cast the mixture either by gravity or pressure injection.	Viscosity B	Brookfield	<b>22000 cP</b>
<b>Inhibition of Cure</b>	Viscosity Mixed	Brookfield	<b>23000 cP</b>
Great care must be taken when handling and mixing all addition cured silicone elastomer systems, ensuring that all the mixing tools (vessels and spatulas) are clean and constructed in materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts and PVC stabilizers; epoxy resin catalysts and even contact with materials containing certain of these substances e.g. molding clays, sulphur vulcanized rubbers, condensation cure silicone rubbers, onion and garlic.	<b>Cured Product</b>		
<b>Curing Conditions</b>	<b>24 hours at 23+/-2°C</b>		
The data offers a guide to the rate of cure at various temperatures, mixing of the components at temperatures between 15 and 25°C is recommended to ensure adequate pot life for degassing and handling. The pot life can be extended to several hours by chilling the components before mixing.	Color		<b>Grey</b>
It is important to check the compatibility in preliminary tests if unknown substrates are used.	Hardness Shore A	ASTM D 2240-95	<b>45</b>
<b>Health &amp; Safety</b>	Max Working Temp		<b>200 °C / 392 °F</b>
Safety Data Sheets available on request.	Min Working Temp		<b>-50 °C / -58 °F</b>
	Thermal Conductivity		<b>2.3 W/mK</b>
	<b>Electrical Properties</b>		
	Volume Resistivity (Ohms cm)	ASTM D-257	<b>3.8E+14 ohms cm</b>
	<b>Storage</b>		
	Max Storage Temperature		<b>30 °C / 86 °F</b>
	Shelf Life		<b>12 mths</b>