

TECHNICAL DATA SHEET

SIL GEL

Silicone Gel RTV Silicone Potting Compound & Encapsulant

Solar PV Junction Box and PCB Potting Material

Sil Gel silicone gel potting compound is a soft, very adherent, room temperature or heat accelerated cure water clear RTV silicone gel encapsulant designed for the encapsulation and protection of PCB's, electronics components, LED lighting and junction boxes. Curing in 24 hours at room temperature SilGel easily flows around complex PCB's and is used to provide protection from vibration, thermal or mechanical shock. SilGel has excellent dielectric properties and also gives outstanding protection from moisture, dust and many environmental contaminants.

Use and Cure Information

How to Use

Sil Gel is supplied in several pack sizes and consists of kits containing equal quantities of Parts 'A' and 'B'. Containers should always be kept sealed when not in use, and all mixing equipment must be clean and free from contaminants such as organo-tin, -sulphur, -nitrogen compounds which can poison the catalyst and prevent proper cure.

Application and Cure

Each of the **Sil Gel** component parts should be mixed in the recommended one-to-one ratio (by volume or weight). This can be done readily either by hand or using a powered mixer, avoiding excessive aeration. The curing process begins as soon as the components are mixed and the working or pot life of the mixed system is dependent on the ambient temperature conditions. Note: Chilling the separate component parts, before and after mixing, will extend the pot life, but not indefinitely.

Adhesion

Fully cured **Sil Gel** exhibits good adhesion to most substrates such as:
Aluminium, stainless steel, ABS, polycarbonate, PCB boards, Nylon 6,6

Inhibition of Cure

Great care must be taken when handling and mixing all addition cured silicone elastomer systems, 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;

Uncured Product

Colour:		Transparent
Catalysed viscosity	Brookfield	630mPa.s Pot
Life:		>45 minutes
SG•A'Part		0.97
SG•B'Part		0.97
* measured at 23+/-2°C and 65% relative humidity		

Cured Elastomer

(after 7 days cure at 23+/-2°C and 65% relative humidity)

Penetration (Cone Weight):		19.5/2.5mm
Specific Gravity:	BS 903 Part A1	0.97
Min. Service Temperature:		-55°C
Max. Service Temperature:		+200 °C CTE
Volumetric		930 ppm/C
CTE Linear		310 ppm/C

Electrical Properties

Volume Resistivity:	ASTM D257	2.0E+15 Ω.cm
Dielectric Strength:	ASTM D-149	>18.5 kV/mm

Curing Time

Temperature °C	Time
25	<24 hrs
100	<60 mins

Packages –

Gels are normally packed in 2kg, 10kg and 40kg kits
Storage and Shelf Life – Expected to be 18 months in original, unopened containers below 40°C.

Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations or suggestions regarding the use of such products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it, and that the actual conditions of use are suitable.



01670 734400



+44 (0) 1670 734400

Intek Adhesives Ltd | Unit 20 Atley Business Park | Cramlington | Northumberland | NE23 1WP

enquiry@intek-uk.com

www.intek-uk.com