

A/B-Component **Graphene Thermal Conductive Pouring Sealant** Product manual

Graphene

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A/B-component Graphene Thermal Conductive Pouring Sealant

【Product Introduction】

This product is a low viscosity adhesive two-component thermal conductive silicone pouring sealant, which can be solidified at room temperature or heated to solidified. The higher the temperature is, the quicker the curing process is. After curing, this product can play the role of waterproofing, moisture proofing, dust proofing, insulation, heat conduction, corrosion prevention, temperature resistance and shock proofing.

【Product Model】 TSL-SIG-G2A10(A/B)

【Applications】 :

This product is suitable for encapsulating high power electronic components, high-frequency transformers, connectors, sensors, electric heating parts, heat dissipation and high temperature module power and circuit boards.

【Physical property】

Specifications		A Ccponent	B Component	Testing Standard
Before the curing	Appearance	gray	colourless	Before curing
	Viscosity (cps)	<5000	<5000	GB 2794
	A Component: B Component (mass ratio)	1: 1		/
	Mixed viscosity (cps)	<5000		GB 2794
	25°C operable time (h)	2		/
	25°C setting time (h)	<6h		/
	Setting time (min, 80°C)	15-30		/
After curing	Color and Appearance	cinereus		visual
	Density (g/cm ³)	<1.5		ASTM D792
	Hardness (shore A)	45~55		ASTM D2240
	Breakdown voltage (KV/mm)	≥10		ASTM D149
	Mass resistivity (Ω·cm)	>10 ¹³		ASTM D257
	Dielectric constant	≤5		ASTM D150

	Strength of extension (psi)	≥100	ASTM D412
	Water absorption (%)	0.01	ASTM D570
	Operating temperature	-60-200	/

【Directions and Safety】

1. Please read the safety data sheet of the products (MSDS) and hazardous materials identification system (HMIS), before using of this product.
2. Before mixing, first add the A components in the container and stirred evenly.
3. Add the B component to the container in the ratio of part A: part B = 1:1 (in weight). After the A/B component is proportionally mixed, continue to stir for at least 5 minutes to ensure the homogeneity of the mixture.
4. Usually, mixed sealant needs to defoaming before use. To a moulding (thickness of the sealant) below 20 mm, it can be moulded and then defoamed naturally. No need for an extra defoaming step. However, in the case of high temperature curing or deep molding, a separate defoaming process is required. This is to remove bubbles from the surface and inside of the molded. The mixture should be placed in a vacuum container and defoamed at 0.08MPa for at least 5 minutes. After defoaming, the gel solution should be used (filled and sealed) within 1-2 hours (25°C).
5. The curing time is determined based on the curing temperature. It can curing at room temperature or heat to curing. Since the curing speed in winter is slower, it is recommended to use heat to speed up the curing. It usually will take 15 minutes to curing under 80 ~ 100 °C. At room temperature of 25 °C, it usually takes 8 hours to curing. Heating method includes heating box or drying line.
6. Sulfur, phosphorus, nitrogen compounds, water and organic salts may block the curing or cause non-curing of the product. It is suggested to conduct a simple test to verify before use. If necessary, the application area should be cleaned before application of the product.

【Other Instructions on safety, health, and environmental protection】

1. Keep the sealant sealed and stored. The mixed gel should be used all at once to avoid waste. Already solidified sealant cannot be liquefied again or reused (encapsulation).
2. This product is compliance with the control of hazardous (the EUROHS) standard, and also compliance with the national environmental protection requirements.
3. This product is not a dangerous substance, but please do not swallow it or get it into eyes.
4. Valid storage time is more than 12 months. After a period of storage, the gel may be layered. Please stir well before use. That would not affect its performance.

【Appendix】

All data reported in this description was obtained in laboratories. The actual measured data from different lab may be slightly different due to individual equipment and changes of the environment. If the above data are changed, the latest instructions are subject to the company's latest instructions.



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