TECHNICAL DATA SHEET 9607 (Silicone Potting)

Two-Components

OVERVIEW

9607 Condensation Silicone Potting Compound is a kind of silicone rubber that is cured by moisture in the air and mixed catalyst. The curing time mainly depends on the amount of catalyst. The more the amount of catalyst, the faster the curing speed. However, shrinkage and by-products are released during curing. With a need to mix the liquid base adhesive and the catalyst or crosslinking agent, a two-components silicone potting compound comes in handy for insulating and encapsulating materials or airtight shock absorbers. It's a good choice if you want things to be well sealed up the some extra cushion. in electronics manufacturing and assembly, potting materials are compounds that can fill and seal cavities in electronic assemblies. By doing so, potting compounds protect components from vibration and shock. Shelf life(<25ºC) is 6 months.

FEATURES & BENEFITS

- Small shrinkage during curing, no heat to make high temperature;
- Environmentally and friendly, no corrosion to substrate;
- Good thermal conductivity and fluidity, which allow long operation time and fast overall curing. Suitable for automatic glue filling equipment;
- Good electrical properties, chemical stability and weather resistance;
- Insulation waterproof, moisture-proof and shock-proof;
- Good cold and heat resistance, can be used for a long time under the temperature of -50 ~ 200 C;
- This product doesn't need to use other primers, and has good adhesion to PC PC(Polycarbonate), ABS, Epoxy and other materials;
- Lead-free and RoHS 2002/95 / EC compliant

APPLICATIONS

- Encapsulating the power of high-power LED bulbs;
- Encapsulation and protection of sensors, transformers, signal amplifiers, high-voltage resistor packages;
- Encapsulation of HID lamp stabilizers in the automotive industry, module power supplies for automotive ignition systems, etc. ;
- Encapsulates and protects general electronic components, power modules and printed circuit boards. Waterproof, moisture-proof, and high voltage resistant.

COMPOSITIONS

- Polydimethylsiloxane matrix
- Thermally conductive fillers
- Two part, 1 to 1 mix ratio, thermally conductive gel

Curing time for reference (non-specific value)

Temperature	25ºC	80ºC	100ºC
Time	4-8h	30min	20min

Performance (test environment:25ºC,RH:65%)

Test items	Guideline	Value
Appearance	Visual inspection	A:Transparent B:Transparent
Viscosity(cps)	GB/T 2794-1995	A: 4000 ~ 6000 B:4000~6000
Surface dry time(m)	GB/T 13477.5-2002	30~90
Mixed viscosity	GB/T 2794-1995	4000~6000
Full curing time(H)	GB/T 13477.5-2002	≤24
Density(g/cm3)	GB/T 13477.2-2002	A:2.4±0.1 B:2.4±0.1

Physical properties after curing

Shore hardness (shore A)	GB/T531-1999	55
Breakdown voltage (kv/mm)	GB/T1695-2005	10
Volume resistivity (Ω•CM)	GB/T1692-2008	>1.0×1014
Thermal Conductivity W/(m·K)	ASTM D5470	1.0
Dielectric constant 60Hz	GB/T1693-2007	3

Product identification

Recipe Code	Surface dry time	Color	time Conductivity
ZHJ30	30	G	1.0

ZHJ30 is the formula identification code of the product, 15 is the surface drying time (30 minutes) of the product, G means the color of the product is Gray, 1.0 means that the thermal conductivity of the product is 1.0 (W / m · K), ZHJ30-30-G -1.0 is the ID number of the product.

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INSTRUCTIONS

1.) **Weighing:** Weigh part A and B accurately (before weighing, part A needs to be properly stirred by hand or machinery, and part B should be fully shaken in a sealed state before use). For general use, weight ratio A: B = 1: 1. If you need to change the ratio, you should have a simple test before changing. In general, the greater the amount of part B, the shorter the curing time and operation time, and the harder the elastomer after curing.

2.) **Mixing:** Add part B to part A and mix well (Mixing time is generally 5-10 minutes, it shouldn't be too long);

3.) **Pouring:** Vacuum defoaming of the evenly mixed compound (in general, the encapsulation thickness below 10mm will naturally defoam without additional defoaming. If the encapsulation thickness is large, pinholes or bubbles may be generated on the surface and inside. Therefore, the mixed solution should be placed in a vacuum container, degassed at 70mmHg for at least 3 minutes, and then poured into components to complete the potting operation (when adhesion is required, please confirm whether it can be attached before use, and then apply The necessary cleaning treatment should be performed on the surface of the contacted substrate before pouring. If necessary, our company's special primer should be used to enhance the adhesion between the colloid and the material);

4.) **Cure:** Place the potted parts at room temperature for curing. After the initial solidification, it can enter the next process. It takes 8 to 24 hours to fully cure. In the summer with high temperature, the curing will be faster; in the winter with low temperature, the curing will be slower. Do not completely seal and heat (>60° C) the potting device until the small molecular substances generated during curing are completely released. If complete sealing is required, it is recommended to seal after 3 days in summer and 7 days in winter. After initial curing of the glue, proper heating (not exceeding 60 ° C) can be adopted to accelerate curing.

SPECIAL STATEMENT

The data provided in this note are measured under specific conditions, and may vary slightly depending on the use environment. It is recommended to perform application testing before use to confirm whether the performance requirements

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