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### **DESCRIPTION:**

Tacusil 210078 is a two components PU casting sealant. It has excellent electrical properties, impact resistance and weather resistance. It is suitable for insulation protection of electronic components, such as mutual inductor and capacitor.

### CHARACTERISTICS:

Appearance	
Part A	Brown liquid
Part B	Black liquid
Viscosity @23°C, mPa.s	
Part A	50±30
Part B	11,000±5,000
Mixed	800±500
Density @23°C, g/cm <sup>3</sup>	
Part A	1.05±0.05
Part B	1.60±0.05
Mixed	1.48±0.05
Mix ratio by mass	20 : 100
Pot Life, min	40-100
Gel time, min, 160g	100 - 160
Condition of curing °C/h	60/3~4 or 23/24-48
Hardness @ 23°C Shore A	75±10
Volume resistivity @ 23°C Ω.cm	≥4.0×10 <sup>13</sup>
Dielectric Strength @ 23°C KV/mm	>20
Permittivity@ 50Hz	5.5±1.5
Tensile strength, MPa	≥1.5
Elongation rate, %	≥10
Water absorption rate, % @23°C, 24h	< 0.3
Flammability rating	Approvable to V-0
Operating temperature, °C	-40~135
Storage life, Sealed at room temperature $5\sim35^\circ\mathrm{C}$	6 months

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\* Curing time can be adjusted regarding the device size, device structure, curing temperature, casting weight and ambient temperature.

# **Proposed Process for Application:**

### 1. Precuring

Put the device into the oven at 70-80°C for 1 to 1 hours, or at lower temperature for longer time. This aims at removing the moisture on the device surface. At low temperature, B material will have a higher viscosity, and A material will become crystallized. So please precure the material to 25~45°C before application.

2. Mixing

Weight A and B material according to the required ratio. Stir vertically using the mixing rod. Keep stirring at the same direction (clockwise or anticlockwise) for 2-3 minutes. Stir slowly (at ~1 round per 5 seconds) to avoid mixing the air into the liquid. Please stir the container bottom and the fringe, to avoid the non-solidification at certain region.

3. Defoaming

If the casted material surface (after cure) is required clean with no bubble, then please vacuumize the casted material ( $\leq$ -0.1Mpa). If auto casting machine is used, then please skip step 1 and 2.

4. Casting

Cast the material into the device box. If the device is big with a complicated structure, casting should be done several times. The bubbles on the surface can be removed by hot wind.

5. Curing

Cure at  $23^{\circ}C/48 \sim 72h$   $gcolored 60^{\circ}C/3 \sim 4h$ . The curing time should be longer at lower temperature. High humidity would cause bubbles inside the solid, as the product is sensitive to moisture. The preferred operation condition is ambient temperature  $23\pm3^{\circ}C$ , relative humidity <70%.

## Storage and transportation

- 1. Sealed storage at ambient temperature 5~35°C, relative humidity 45~80%RH, in dark place.
- 2. Weight the correct type (A/B) accurately.
- 3. Please use up the material once opening the package of A &B material. Please sealed instantly to avoid moisture, if the package of material cannot be used up.
- 4. Propose to daily clean the mixing chamber and the injection head of the potting machine, if auto potting machine is used.
- 5. Transportation as normal chemicals, since the product is non-dangerous goods.

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### Package

A material package: 20kg per barrel B material package: 25kg per barrel

### **Remarks**

The performance data listed above is the typical values after fully curing, based on the standard condition, ambient 23°C, relative humidity 60%. The data is a reference for customer applications. The data cannot be guaranteed at the special application condition on customer site. Customers should finish necessary verification tests before application, and assure our products meet your requirements of process and application based on actual experimental data. The reliability quality depends on the customer and us. We reserve the rights to revise the technical data. Please subject to the actual experimental data when use this product.

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