

Becoat 9062 Silicone conformal coating

The Solutions that Create Value!

Room temperature or heating curing material

Solvent-based silicone resin

Product Introduction

BECOAT 9062 is a silicone resin conformal material for surface coating of electronic components. It is suitable for an environment with a temperature of $-60\sim 200^{\circ}\text{C}$. This product is suitable for coating the surface of PCB circuit boards. It can be insulated, moisture-proof, waterproof and rust-proof, with a bright and smooth surface, high mechanical strength, highly transparent paint film, anti-leakage, shock-proof, dust-proof, anti-corrosion, anti-aging, and electric resistance Halo and other properties.

In addition, the coating protective film is also conducive to the abrasion and solvent resistance of circuits and components, and can release the pressure caused by periodic changes in temperature. It can fully protect the wire wrap board in a variety of chemical corrosion, salt spray, humidity, high pollution and dust, vibration, high and low temperature and other harsh environments without affecting its work and signal.

Characteristic

- ✧ One-component room temperature silicone resin;
- ✧ The curing can also be promoted by heating;
- ✧ Medium viscosity, suitable for brushing, spraying and dipping processes;
- ✧ After curing, a transparent elastic protective film with certain hardness and wear resistance is formed;
- ✧ Good adhesion to various circuit boards;
- ✧ Good resistance to high and low temperature and flame retardancy.

Typical application:

- ✧ Hybrid integrated circuit
- ✧ Automotive electronic control board
- ✧ Electronic circuit board
- ✧ Aviation instrumentation
- ✧ Flexible printed circuit board
- ✧ Computer control panel
- ✧ Industrial Control Panel
- ✧ Semiconductor crystal circuit protection
- ✧ Home appliance controller
- ✧ Outdoor LED display

The main technical parameters

Model	BECOAT 9062
Color	Transparent
Status	Flowing liquid
Curing condition	Room temperature or heating curing
Viscosity (mPas)	800±100
Density(g/cm ³)	1.05-1.10
Solid content (%)	70±2
Shelf life (months)	12
Tack a free time(25°C 75%RH)min	<15
Tack a free time(60~80°C 50%RH) min	3-5
Full hardening time(25°C 50%RH) H	24

Electrical/mechanical properties

(cured for 7 days at a temperature of 25°C and a humidity of 75%)

Hardness (shore A)	≥80
Temperature range (°C)	-60~+200
Linear expansion coefficient (DMA, -65~25°C)	2.58×10^{-4}
Dielectric strength (kv/mm) IPC-TM-650	≥16
Dielectric constant (1.2MHz)	2.8
Volume resistivity (Ohm/cm) IPC-TM-650	$\geq 1.0 \times 10^{15}$

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Adhesion	Hundred grid	5B
Moisture-proof insulation	IPC-CC-830B	Passed
Electromigration	IPC-SM-840C	None
Electric corrosion	IPC-CC-830B	None
High and low temperature impact	-45-125°C	Passed
Hydrolytic stability	IPC-CC-830B	Passed
Salt spray test	5% NaCl solution/pH value 6.5-	Passed
Anti-fungal test	ASTM G21	Passed
Flame retardant test	UL94-V0 Coated substrate test	Passed

Use process

- ✧ BECOAT 9062 is suitable for brushing, dipping, spraying, and selective spraying processes;
- ✧ During use, if a thinner coating and smooth surface is required, it is recommended to use BEREASE 20 for dilution.

Curing process

The typical curing process for a 3mil (0.075mm) thick coating is to cure at room temperature for 10 minutes and then dry at 80°C for 10 minutes. If there are bubbles in the coating, leave it at room temperature for a longer period of time, and then heat and cure it after the bubbles are eliminated.

Operation process

- ✧ Before coating, the dust, water (moisture), and oil on the surface of the object to be coated must be removed and kept dry.
- ✧ This product can be applied by brushing, spraying, dipping and other methods. The coating is limited to no flow or omission. The thickness of one coating film is generally between 0.1-0.3mm. According to the selected coating process, a suitable solvent can be selected to dilute the coating before use.
- ✧ After the first coat is dry, you can coat the second coat.
- ✧ After the first coat is dry, can coat the second time.

Packing specification

- ✧ 1KG/can, 15 cans/carton;
- ✧ 20KG/barrel
- ✧ Other packaging specifications (need to inform in advance to order)

Storage and transportation

This product is sealed and stored. The recommended storage temperature is 5~25°C in a cool and dry place; the storage period is 12 months. The unused glue should be tightened immediately, and it is recommended to store it in an explosion-proof box in the dangerous goods inventory.