Becoat 9060 Series silicone conformal coating

The Solutions that Create Value!

RTV silicone rubber

Features

- Transparent single component, easy to operate
- Low viscosity environmental friendly fluid, solid content of 100%
- Easy to brush, spray, dip coating a variety of processes, curing speed
- Contain fluorescent indicator, check after sizing
- Good adhesion and no corrosion. Good adhesion to various circuit boards and no corrosion
- Stable under 60 ℃, 280 ℃ and elastic
- Excellent dielectric properties

Typical applications

- Form a permanent coating to separate moisture and contaminants
- Various electronic components, IC chips, thick film circuits, printed circuit boards

Typical performance parameters

Performance	9060	9061
Appearance	Transparent	Transparent
Density (g/cm3, 25 ℃)	0.99 ± 0.03	0.99 ± 0.03
Viscosity (mpa.s)	600	1000
Dry time (min, 25 ° C)	8～12	15～20
Initial curing (hr, 25 ° C) 0.1mm	0.5	1
All dry time (hr, 25 ℃)	72	72
Hydrophobicity (HC value)	1 grade	1 grade
Hardness (Shore A)	20±3	20±3
Tensile strength (MPa)	0.3	0.3
Elongation at break (%)	100	100
Using temperature range (℃)	-60～280	-60～280
Volume resistivity (Ω cm)	≥1.0×10^{15}	≥1.0×10^{15}
Dielectric strength (kV/·mm)	≥20	≥20
Dielectric constant (1.2MHz)	2.9	2.9

Packing

- 1 kg/bottle
- 18kg/barrel
- 100mlpcs

Transportation

- Store in a cool dry place with a storage period of 12
- Month (25° C)
- This product is non-dangerous and can be transported as a general chemical.

Product description

9060 is a low viscosity one-component silicone protective coating that is environmentally friendly, non-toxic and easy to use. After curing, it forms an optical transparent film with excellent high and low temperature resistance, weather resistance, electrical insulation and excellent waterproof, shock and absorption expansion and contraction, corona resistance and leakage resistance.

It can enhance the moisture-proof and anti-fouling ability of electronic circuits and components, prevent the solder joints and conductors from being eroded, and also shield and eliminate electromagnetic interference and prevent short-circuit of the circuit, and improve the insulation performance of the circuit board.In addition, the protective film of the coating also contributes to the abrasion resistance and solvent resistance of the wires and components, and releases the pressure caused by periodic changes in temperature.

Use process

Surface treatment: remove dust, moisture (moisture) and oil from the surface of the object to be coated and keep it dry before applying.

Cover: if some connectors, sockets, switches, boards and other areas are not allowed to have coated materials. Appropriate cover measures should be taken.

Construction:

- According to the complexity of PCB, device distribution density and configuration, it can be applied by different methods such as brushing, spraying and dip coating.
- For small sprays, use manual spray guns, automatic spray, and use 100% paint directly.
- Spray amount pressure will depend on the specific type of spray equipment used. The effect target is that the coating does not hang or leak.
- The thickness of the primary film is generally between 0.1 and 0.4 mm. If a thicker coating is desired, it is best to obtain it by applying two thinner coatings, and it is required that the first layer be completely dried. Allow to apply the second layer

Curing: it can be cured at room temperature by laying flat on the support frame after construction. Heating can speed up the curing, recommended heating temperature 50 ℃, 60 ℃ 5-10 mins.

Curing at room temperature: 9060 conformal coating cures by reacting with water vapor at room temperature.The 0.1mm coating will reach the surface dryness in about 10min, and it will take 72 hours to fully cure. Recommended curing conditions are 25 ℃ and at least 50% relative humidity, increasing temperature and humidity can speed up curing.

Repair: Repair the already coated device by simply touching the soldering iron directly onto the coating. Then install new components, then clean the area with a brush or solvent; or clean the solvent; dry and recoat with paint.

Precautions

- After pouring out the glue in the bottle, wipe the glue at the mouth of the bottle, tighten the cap, and store in a cool place. When using it again, if there is a little crust at the seal, remove it and it will not affect the normal use.
- When using the dip coating method. If the paint cylinder is not used temporarily, it should be covered.If it is not used for a few days, it is necessary to remove the crust layer on the surface before use.Pay attention to ventilation during construction to facilitate rapid curing of the coating. Do not directly face the tuyere to avoid orange peeling on the adhesive layer.
- This product is a one-component package that is cured by contact with moisture in the air. The higher the moisture content in the air, the faster the drying and curing of the rubber layer, but do not exceed 85% humidity. Excessive humidity tends to cause bubbles in the coating.
- This product is non-dangerous, but do not enter the eyes and eyes. Avoid direct inhalation of mist when spraying automatically.

Safety Precautions

- Keep away from children.
- It is recommended to use in a well ventilated area.
- If it gets on your skin, wash it off with soapy water.
- If you accidentally get on your eyes, immediately rinse with water for a long time while widening your eyes. If the irritation persists, you must seek medical attention.
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Oxygen permeability of various materials

Oxygen permeability of various materials	
Material type	Permeability
Methyl alkoxy	60
natural rubber	2.4
Low-density polyethylene	0.8
High-density polyethylene	0.1
Butyl rubber	0.14
High density polystyrene	0.12
Nylon 6	0.004
$1x10^{-9}$ (cc·cm/sec·cm^2·cmHg)	

Polymer permeability（1 mm）	
Material type	Permeability
Polyolefin	2
Polyurethane	25
Acrylate	16
Silicone resin	47
Silicone rubber	100

g/m^2·25h

Compared with other types of organic polymers, silicone rubber coating materials have the characteristics of insulation, heat resistance, corrosion resistance, and low temperature resistance. Due to their softer properties, it is easier to absorb external pressure during use.

WARRANTY INFORMATION

- The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Beginor's products are safe, effective, and fully satisfactory for the intended end use.
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