

# **Product technical specifications**

Product name: Kootai Conformal Coating

Model: SK-7000W-L

Kootai New Materials Ltd, Gautam Buddha Nagar, UP, India

Product technical specifications

#### 1. Product introduction



SK-7000 series of three-proof adhesive is composed of special synthetic resin as the main body and special multi-component copolymer modified polymer resin. It combines the advantages of various single insulating materials and is

completely different from traditional three-proof adhesive. After this three-proof adhesive is coated on the PCB, it can be used on various printed circuit boards through the adhesive reaction between its own groups and the air medium. Generates a

dense protective film with strong insulation protection capabilities.

Self-reactive conformal adhesive is coated on printed

circuit boards and components, which can reduce or eliminate electronic operating performance degradation when they may be affected by adverse factors in the operating

environment. PCB circuit boards that have used three-proof adhesive have the "three-proof" properties of moisture-proof, salt spray-proof, and mildew-proof, as well as resistance to cold and heat shock, aging resistance, radiation resistance, salt spray

resistance, ozone corrosion resistance, and vibration resistance, thereby improving the circuit board reliability, increase its safety factor, and ensure its service life. In addition, because this three-proof adhesive can prevent leakage, it allows higher

power and closer printed board spacing. This can meet the purpose of component miniaturization. It has the characteristics of quick drying, low Odor, and environmental protection, which can effectively improve customer production efficiency and

quality.

## 2. Product characteristics

- ★ Stable and temperature resistant -40°C~125°C
- ★ Ultra-low water absorption, excellent moisture-proof effect
- ★ The paint film has good flexibility and can effectively eliminate stress between components
- ★ Strong adhesion, can effectively prevent corrosion from salt spray, weak acid, alkali, etc.
- ★ Strong weather resistance, resistance to hot and cold shock, and can effectively protect products.

# 3. Scope of application

It is widely used in the three-proof protection of electronic control boards such as computer products, communication products, televisions, audio equipment, household appliances, instruments and equipment, medical equipment, etc. It can

extend the life of circuit boards and improve the stability of use.

## 4. Application Guide

#### before use:

1. Workers should wear protective equipment, such as masks, gloves, aprons... The temperature and humidity of the production site should be controlled at: temperature 10°C-28°C, relative humidity

The upper limit is 85%, and it is optimal under the condition of ≤70%.

2. Make sure that the container containing the three-proof adhesive is clean and dry and free of any form of contamination. If there is contamination, stop using it immediately and replace it with a new three-proof adhesive. 3. This

conformal adhesive has good coating compatibility. Under normal circumstances, there is no need to clean the coated surface before coating. But make sure the surface to be coated is dry, clean and free of

Oil, dirt, impurities, etc. can be used to obtain the best coating effect and protective performance of the three-proof adhesive.

- 4. Maintain good ventilation equipment in the workplace to better protect the health of personnel.
- 5. Keep the three-proof plastic container tightly closed to avoid the intrusion of water vapor, etc. Please read the Product Safety Data Sheet (MSDS) before using this product.

- 1. When using, try to use a sealed container to store the three-proof adhesive. Do not use a blower to blow directly onto the open container containing the three-proof adhesive to avoid volatilization of the three-proof adhesive. Too fast and waste material or appear whitening on the surface. If there is a need to pause during the operation, the container containing the three-proof glue must be sealed during the pause, and measures should be taken to prevent evaporation and dust, so as not to affect the effect when used again.
- 2. During the operation, ensure that the thickness of the PCB board's three-proof adhesive is uniform.
- 3. Keep the temperature of the oven on the production line balanced. The specific temperature depends on the temperature resistance of the components and the process requirements. The upper limit is 100°C. It does not change when it just comes out of the oven. It can be touched in any way to prevent burns and damage to the glue coating. Wait for the surface to dry before proceeding to the next process.

#### After use:

- 1. Unused three-proof adhesive should be placed in a special collection container and cannot be mixed with unused three-proof adhesive.
- 2. For used containers, clean them with special thinner for three-proof adhesive, wipe them dry with a dry cloth, and put them in the designated area.
- 3. Take off the protective equipment, put it in the designated area, and wash your hands and face before leaving get off work.

# 5. Technical specifications

Project	Product indicators	Guideline
Material	Modified polyurethane resin	
Exterior	Light yellow transparent liquid	GB/1721
Specific gravity (25°C)	0.970±0.100KG/L	
Viscosity (25°C, 4# Tu cup, seconds)	14±3	GB1723-79
Halogen content (in CI-Total, wt%)	qualified	IPC-TM-650-2007
Drying time (25°C, RH70%, natural drying)	Surface stem≤10′	GB1727-79
	Hardening ≤ 2HR, hard work ≤ 168HR	

# 6. Performance indicators

project	Product indicators	Testing methods and standards
Adhesion (cross-hatch test)	Level 0~1	GB/T 9286
Water absorption rate (%)	≤1.0	HG/T 3856-2006
Paint film flexibility	qualified	QJ/GD 41.13.060
Heat softening resistance	qualified	QJ/GD 41.13.060
Flammability rating	UL-94HB	UL746
Volume resistivity	1013Ω.cm	GB 1981-89
Acid and alkali resistance	No corrosion, peeling,	5% NH4Cl, 5% Na2CO3, coating
	wrinkling, blistering, loss of	for 72h
	gloss, etc.	
Thermal shock	qualified	IPC-TM-650.2.6.7.1A
Salt spray test	pass	ISO 9227
mold testing	Level 0	GB/71741-2007

# Please note:

- 1. The above performance test is based on the condition that the paint film is completely dry;
- 2. This information is for reference only and does not serve as a basis for assuming legal liability;
- 3. When using, please customize the most suitable program or control method according to the process requirements to ensure quality stability.