

## Shin-Etsu Silicone RTV for Conformal Coating

# KE-4970

### Features

- One component room temperature cure
- No corrosive to metals
- Translucent in color
- Solvent free
- Contains UV indicator
- Usable temperature range - from -40 to +180C
- Good for moisture proof coating on PCB board
- Excellent electrical properties
- Equivalent to UL-94-V0 on FR-4
- Low molecular Siloxane reduced.

### Applications

Conformal coating for PCB board

### Typical Properties

Item	Unit	Properties
Cure type		Condensation (Alcohol)
Appearance (Transparency)		Translucent
Appearance (Color)		Light Straw
Viscosity	mPa·s	250
Tack-free time	min.	30
Density 23°C	g/cm <sup>3</sup>	0.99
Hardness, Type-A		33
Volume resistivity	T Ω · m	15
Dielectric strength	kV/mm	20
UV light emitting test at 365nm		Pass
Flammability, UL-94		V-0 on FR-4

Not specified value

**Packing:** 1kg tin, 20kg pail

**Curing Condition:** 23±2C/50±5%RH 7days

### Handling precautions

KE-4970 reacts with moisture in the air and begins to cure at the surface. Consequently, the cure speed will vary according to the temperature and humidity of the use environment, but KE-4970 does not exhibit good deep-curing and is therefore not suitable for wide-area surface bonding. In addition, please note that if humidity exceeds 100% and water droplets form on the curing rubber, a hydrolytic reaction will precede the crosslinking cure reaction, which will reduce the strength of the post-cured rubber and remain surface tackiness.

The electrical insulative properties will temporarily decline during the curing process. But in nearly all cases, KE-4970 exhibits its inherent electrical insulative properties once completely cured.

Does not use KE-4970 condensation cure product in a completely enclosed space.

KE-4970 may discolor over time, but this does not negatively affect the characteristic properties.

Completely remove water, oil, dirt, and contaminants from the surface of the adherend. For certain substrates, use a primer as needed.

## **Usage**

### **Surface cleaning**

Using sandpaper or a solvent (toluene, xylene, etc), thoroughly clean the surface to remove all foreign matter such as rust, oil, dirt, and grime that may impair bonding. Use caution when cleaning plastics with solvents, as some solvents may damage certain plastics.

### **Application of primer**

Apply uniformly using a brush or other tool. Be careful that no spots are missed, as there may be poor adhesion in those areas.

## **Storage precaution**

Stored between 1~25C, out of direct sunlight.

## **Safety and hygiene**

Be sure to provide adequate ventilation when using KE-4970. During curing methanol gas is generated. If you experience any unpleasant symptoms please move to an area with fresh air.

Uncured product may irritate skin and mucous membranes, so avoid eye contact and prolonged skin contact. In case of accidental eye contact, flush with water for at least 15 minutes and see a physician. In case of skin contact, immediately wipe off with a dry cloth and wash with soapy water. Contact lens wearers should exercise adequate caution; if uncured product enters the eyes, the contact lens may become bonded to the eye.

When using, be careful not to rub the eyes with the hands. Please take appropriate precautions such as wearing safety glasses.

Make sure that work area is well ventilated. Be careful not to inhale vapors from the products used.

Keep out of reach of children.

For more information, please read the Material Safety Data Sheet (MSDS). You can receive an MSDS from our Sales Department.

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