Technical Information



SOMAKOTE IR-200 Heat Curable Adhesive for SMT

1. Product Description

SOMAKOTE IR-200 is a very fast heat curing, one-component and thixotropic adhesive for bonding surface mounted devices. The product can be applied by screen printing.

2. Product Features

- 1) Stable one part product, no measuring nor mixing.
- 2) Fast curing at the relatively low temperature.
- 3) Excellent adhesion to all common boards and chip components.
- 4) Good heat resistance to the wave soldering conditions.
- 5) Excellent insulation properties.

3. Product Properties (Typical Values)

3-1. Uncured Properties

Composition		Epoxy resin based
Appearance		Smooth thixotropic red paste
Viscosity ¹⁾ (25°C)	0.5 rpm	330 Pa∙s
	5.0 rpm	60 Pa∙s
Thixo ratio (0.5rpm/5.0rpm)		5.5
Specific gravity	(25°C)	1.2
Shelf life	5 to 10°C	6 months
	25°C	3 months

 Viscometer : EHD type (cone-plate type). Tokimeck Co.Ltd. 3°, 28mmφ cone-plate

3-2.Cured Properties

Tensil shear strength (Al/Al)	>882 N/cm ² (>90 kgf/cm ²)
Device shear strength ²⁾ Ceramic-resistor (2012) Ceramic-capacitor (2012) Mini-mold Tr Melf-chip (resistor, 3.4×1.4φ) Melf-chip (capacitor, 3.4×1.4φ)	46 N (4.7 kgf) 43 N (4.4 kgf) 38 N (3.9 kgf) 34 N (3.5 kgf) 31 N (3.2 kgf)
Wave Solder Resistance (260°C×10sec.)	passed
Corrosion test Effect on copper plate	passed
Surface Insulation Resistivity (Type JIS II · JIS Z 3197) initial after humidified(85°C×85%RH×500hrs、DC 5V)	2.0×10 ¹⁴ Ω 3.2×10 ¹² Ω
Dielectric constant (at 1MHz, JIS K 6911)	3.5
Dielectric loss tangent (at 1MHz, JIS K 6911)	0.018

2) Cured at condition described in figure 1 attached (150°C×60sec.)

4. Curing Conditions (Recommended)

The standard of curing conditions : The shear strength to ceramic-resistor (2012) becomes 29N(3kgf) or more.

Surface temperature of substrate	The shortest heating time
150°C or higher	40sec. or more
140°C or higher	60sec. or more
130°C or higher	90sec. or more

1) The UV exposure is not necessary to cure the product.

2) The surface temperature of a substrate may greatly vary depending on the material & thickness of the substrate and the material & density of the components; therefore, the temperature profile shall be measured and controlled before use the product.

3) Open the container after confirming that the temperature of SOMAKOTE IR-200 adhesive reaches at the room temperature

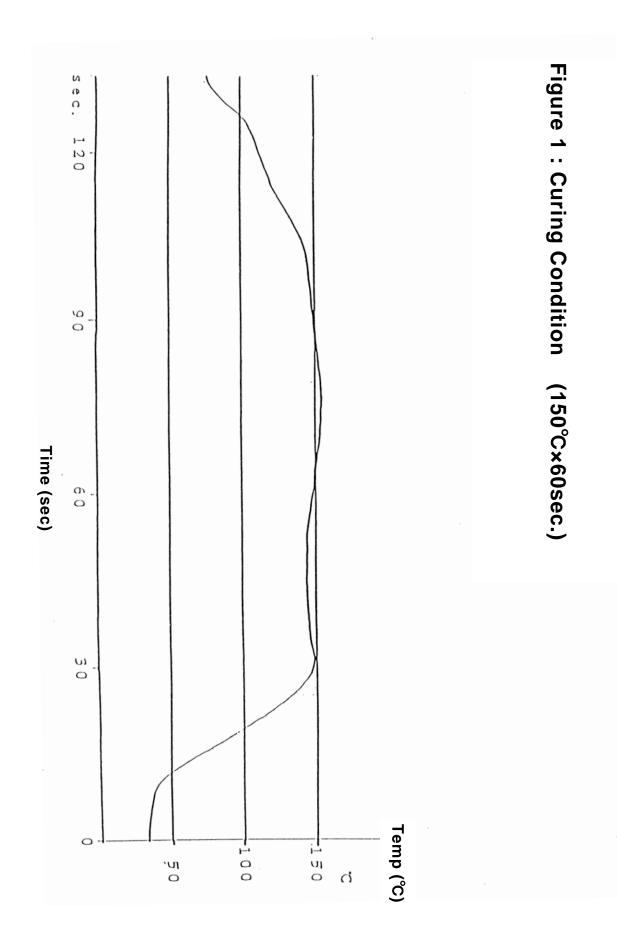
5. Packaging

Package	Contents
Plastic can	1L

6. Precautionary Information

- 1) Handling Information
 - Use with an appropriate local exhaust ventilation for work areas and heat curing areas.
 - Be cautious not to spill the product during the handling.
 - Wash hands and gargle with large amount of water after the handling.
- 2) Storage Information
 - Store the product in a cool and dry place at 5 to 10°C.
 - Keep away from direct sunlight, heat sources and ignition sources.
- 3) Disposal Information
 - Do not dispose the product in any type of effluent.
 - Incinerate the waste product or dispose the waste product in a sanitary landfill. Consult regulations or authorities before disposal.
- 4) First Aid Information
 - Skin Contact : Wash with soap and water. Get a medical advice if irritation persists.
 - Eye Contact : Flush immediately with large amount of water.
 - Get a medical advice if irritation
 - Ingestion : Do not induce vomiting. Get a medical advice immediately.

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