



SM-530 Series Thermal Curable Marking Ink

DESCRIPTION

SM-530 series thermal curable marking ink is a two component thermal curable marking ink comprised of solid and liquid epoxy resins. It is manufactured by Sanwa Chemical and has the following benefits.

1. Excellent screen printability for fine characters.
2. Cured by baking.
3. Excellent adhesion and film hardness.
4. Good chemical and heat resistance, and electrical properties.
5. Good gold plating resistance.
6. Can be used along with the hot air level process.

OPERATING PARAMETERS

Make-Up	60 f of SH-9 additive to 1 kg of SM-530 base and mix thoroughly
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Nomenclature (See ordering sheet for more details)

A.)	Colors	Symbol
	White	W
	Black	C
	Yellow	Y

Note: Not every color and texture combination is available. Please contact FCT for details.

PHYSICAL PROPERTIES

(Note: these are typical properties and is not a specification)

Colors	White, Yellow or Black
Viscosity (RT = 25C or 72F)	350-400 ps after mixing
Hardness (pencil)-JIS-D-0202	>7H
Adhesion-JIS-D-0202	100/100. Passed crosscut hatch test.
Heat resistance (solder)	Passed 5 times floating at 260C for 15 seconds



bath)	
Insulation resistance IPC-SM-840B at 100V	6.8 x 10 ¹³ Ohms as received
Chemical resistance	Passed one hour immersion in IPA, 10% HCl, 10% H ₂ SO ₄ , and 10% NaOH
Shelf life	9 months for unmixed components, when stored at 20C (65F) 8 hours after mixing the components

Note: Typical property values listed above are not to be construed as a specification.

CONTROL PROCEDURES

1. Preparation of the thermal curable marking ink

- A. Mix the two components together thoroughly, in the ratio of 60g SH-9 additive to 1kg of SM-530 base.
- B. Viscosity can be adjusted using SM-530 solvent for smoother printing.

2. Application of the marking ink

- A. Recommended method is screen-printing, using a mesh size of 200-250.

3. Final cure

The thermal cure should be as follows: 140C for 15 minutes

4. Confirmation of cure

Wipe the surface with a cloth wet with a solvent to verify no color or flake is removed.

ANALYSIS

Not applicable.

SAFETY AND STORAGE

Do not store in direct sunlight, high temperature or below freezing. **Store in original uncontaminated container.**

WASTE TREATMENT

Not applicable.

MISCELLANEOUS

Consult MSDS sheet for additional information.