Technical Data Sheet

Protective Polymer Coating
242-SB Pale Yellow

Application

242-SB Pale Yellow is a screen-printable, thermosetting, mineral-filled epoxy coating that is resistant to solvent attack when fully cured. This coating may be used to protect thick film circuits on alumina or porcelain enameled steel. Only one layer (~25 µm) is required when used as a protection, two layers are required for multilayer work.

Due to its mineral filler, 242-SB Pale Yellow polymer coating is not recommended for repeated flexing actions on plastic film substrates. After printing, screen cleaning should be carried out using hydrocarbon solvent of low flash point (as used in the PCB industry).

Coating 242-SB Pale Yellow is formulated and processed to be RoHS compliant.

Typical Formulation Properties

Rheology: Thixotropic, screen printable paste

Viscosity: 100 ± 20 Pa.s at 25.5 ± 0.5 °C when measured using a Brookfield RVT, 10 rpm, ABZ spindle.

Storage and Shelf Life: This product should be stored in tightly sealed containers at 20 - 25 °C, in a dry place away from direct sunlight. The shelf life of a factory sealed container is a minimum 6 months from date of shipment when properly stored.

Typical Process Parameters

Thinning: This paste is formulated at the appropriate viscosity for the intended application. Thinner 402 may be used to replace solvent loss.

Printing: A 325 mesh stainless steel screen with ~25 µm thick emulsion is recommended.

Levelling Time (20 °C):	5 – 10 min
Drying Time (at 125 °C):	10 – 15 min
Curing Schedule:	150 °C/30 min
	230 °C/10 min
Substrate for Calibration:	96% alumina

Typical Properties:

Cured Thickness: (1 layer measured on 96% alumina)	25 ± 5 µm
Approximate Coverage:	120 cm^2/g
Volume Resistivity:	> 10^{10} mΩ.cm
Service Temperature:	-100 to +150°C
Dielectric Constant (K) at 1 kHz: (at 25 °C)	5 – 10
Dissipation Factor at 1 kHz: (at 25 °C, depending upon conductor)	< 0.75%
Insulation resistance: (at 100V DC)	> 10^{10} Ω
Breakdown Voltage: (at 25 °C in air)	> 500 V/750 µm

Solvent Resistance: Good resistance to acetone when fully cured.

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