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PROTECTIVE POLYMER COATING 242-SB Black FL

RoHS Compliant*

ESL 242-SB Black FL 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 enamelled steel. Only one layer (~25µm) is required when used as a protection; two layers are required for multilayer work.

Due to its mineral filler, 242-SB Black FL 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).

PASTE DATA

Rheology:	Thixotropic, screen-printable paste
Viscosity: (Brookfield RVT, 10 rpm, 25.5 ± 0.5 °C)	220 ± 25 Pa.s (ABZ Spindle)
Shelf Life (20 - 25 °C):	6 months

PROCESSING

Screen Mesh, Emulsion:	325 S/S, 25 µm
Levelling Time (20°C):	5 - 10 min
Drying Time (at 125°C):	10 - 15 min
Curing Schedules:	200°C / 30 min
Substrate for Calibration:	96% alumina
Thinner:	ESL 402

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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 / 50µm
Solvent Resistance:	Good resistance to acetone when fully cured

***None of the six substances referred to in the RoHS Directive (2002/95/EC) are used in the formulation of this product.**

CAUTION: Proper industrial safety precautions should be exercised in using these products. Use with adequate ventilation. Avoid prolonged contact with skin or inhalation of any vapours emitted during use or heating of these compositions. The use of safety eye goggles, gloves or hand protection creams is recommended. Wash hands or skin thoroughly with soap and water after using these products. Do not eat or smoke in areas where these materials are used. Refer to appropriate MSDS sheet.