

UVSR 5000/100C

UV Curing Solder Resist

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Product Details

- Application is by screen printing procedure and cured by ultra violet light
- The cured coating has excellent properties such as anti solvent resist, Good adhesion to copper, heat resistivity and electrical properties.
- Suitable for applications using hot-air leveling process
- RoHS & WEEE directive compliant
- Suitable for lead – free solder applications
- Especially usable for fully automated printing line of single sided and double sided printing wiring board.

Physical Properties

Appearance:	Green Paste
Viscosity:	13 – 18 Pa.s at 25°C
Non volatile content:	100%
Hardness/pencil:	4H and above
Adhesion (crosscut hatch):	100/100
Insulation resistance:	5×10 ¹¹ Ω and above
Dielectric strength:	100 KV/ mil
Solder resistance:	10 secs @ 260°C
Chemical resistance:	Fully cured UVSR5000 – 100C is resistant to all chemicals listed. 1,1,1 Trichloroethane, Alcohols, Freon, Arklone, Aliphatic and Aromatic Hydrocarbons, Sodium Hydroxide Solution
Cure condition:	Ultra high-pressure mercury lamp 100W/cm, three lamps, 4m/min, 6m/min conveyor speed Cure energy is 700~1000 mj/c
Storage:	To be stored in the dark at temperature below 20°C to avoid inactivation of the stabilizing system.
Pot Life:	12 months, stored in a dark and cool storage (20°C)

Application / Processing Conditions

Thinning

UVSR5000/100C is a single pack 100% solids resist which are supplied ready for use, and should not require thinning.

N.B. The resist should be stirred well before use.

Pre-Clean

When printing over copper, normal pre-cleaning methods should give excellent results. Copper should be cleaned mechanically before application of the solder resist. Brushing with silicon carbide or scrubbing with pumice is recommended. If the contamination is heavy, the copper should be microetched and brushed or pumice treated to ensure thorough cleaning. Boards must be rinsed and thoroughly dried before printing.

Application

Suitable for hand, semi automatic and fully automatic screen printing machines.

Polyester meshes of 100 - 120T/cm. (255 - 305 T/inch) are recommended.

The film thickness over the copper tracks should be 12 - 15µm. (0.48 - 0.60 mil). Very low film weights should be avoided as this may cause delamination of the resist film from the copper during the soldering process.

Most types of photographic stencils and polyurethane squeegees of 60 - 65° Shore A hardness are recommended.

All screens must be cleaned and thoroughly dried before use and be completely free from residues of screen cleaner and solder mask.

UV Curing

A UV curing unit with 2 x 200 W/inch (80 W/cm.) medium pressure mercury vapour lamps is recommended.

Under these conditions, a speed of cure of 3 - 6m/min. can be utilised to give 2.5 - 3.5 J/cm².

Notation/ Legend Printing

UVSR5000/100C may be overprinted with notation inks. Adhesion is improved if the solder resist is slightly under cured before overprinting with UV curing notation inks.

General Handling

Waste disposal

Care should be exercised in the disposal of printing ink waste. This should be carried out in accordance with good industrial practice, observing all the appropriate regulations and guidelines. For more specific handling advice refer to the MSDS.

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