Conformal Coatings

Technical Data Sheet





Page 1

APLSP

Acrylic Protective Lacquer (Spraying Viscosity)

APLSP is a flexible, fast drying transparent acrylic conformal coating, used for the protection of electronic circuitry. It has been formulated for professional use only to the correct viscosity for non-atomised selective spray applications and meets the requirements of a variety of international standards.

- Promotes efficient production processes; ready to use for non-atomised spraying applications, no dilution required
- Good clarity and high level of stability when exposed to UV light
- · Offers good protection in humid environments and resistant to mould growth
- Provides excellent adhesion to a wide variety of substrates

Approvals	RoHS Compliant (2015/863/EU): MIL Approval (MIL-1-46058C): IPC-CC-830:	Yes Meets approval Meets approval
Liquid Properties	Appearance: Density @ 20°C (g/ml): VOC Content: Flash Point: Solids content: Viscosity @ 20°C (mPa s): Touch Dry: Recommended Curing Time:	Pale Coloured Liquid 0.90 77% -7°C 23% 60-100 15-20 minutes. 24 Hours @ 20°C 4 Hours @ 60°C 2 Hours @ 90°C
	Coverage @ 25µm:	9m ² per litre
Dry Film Coating	Colour: Operating Temperature Range: Flammability: Thermal Cycling (MIL-1-46058C): Coefficient of Expansion: Dielectric Strength: Dielectric Constant:	Colourless -55°C to +125°C Meets UL94 V-1 Meets approval 130ppm 45kV/mm 2.5
	Surface Insulation Resistance: Comparative Tracking Index: Dissipation Factor @ 1MHz @ 25°C:	1 x 10 ¹⁵ Ω >300 Volts 0.01

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Moisture Resistance (MIL-1-46058C):

Meets approval

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

Ashby Park, Coalfield Way, Ashby de la Zouch, Leicestershire LE65 1JR T +44 (0)1530 419 600 F +44 (0)1530 416 640 BS EN ISO 9001:2008 Certificate No. FM 32082





Page 2

<u>Description</u>	<u>Packaging</u>	Order Code	Shelf Life
APLSP Conformal Coating	5 Litre Bulk	APL05LSP	48 Months
	25 Litre Bulk	APL25LSP	48 Months
Removal Solvent	200ml Aerosol	ULS200D	36 Months
	400ml Aerosol	ULS400D	36 Months
	1 Litre Bulk	ULS01L	72 Months
	5 Litre Bulk	ULS05L	72 Months
	25 Litre Bulk	ULS25L	72 Months

Directions for Use

APLSP has been specifically formulated to a viscosity between 60-100mPa s, for use in non-atomised selective coating and spray equipment. The thickness of the coating depends on the equipment parameter set up (typically 25 microns). Temperatures of less than 16°C or relative humidity in excess of 75% are unsuitable for the application of APLSP. As is the case for all solvent based conformal coatings, adequate extraction should be used (refer to MSDS for further information).

Substrates should be thoroughly cleaned before coating. This is required to ensure that satisfactory adhesion to the substrate is achieved. Also, all flux residues must be removed as they may become corrosive if left on the PCB. Electrolube manufacture a range of cleaning products using both hydrocarbon solvent and aqueous technology. Electrolube cleaning products produce results within Military specification.

Spraying - Bulk

APLSP is supplied at the optimum viscosity to give coating quality and thickness depends on the spray equipment and conditions.

APLSP is suitable both for use in manual spray guns and selective coating equipment. The selected nozzle should enable a suitable even spray to be applied in addition to suiting the prevailing viscosity. The normal spray gun pressure required is 275 to 413kPa (40 - 60 lbs/sq.inch). After spraying, the boards should be placed in an air-circulating drying cabinet and left to dry.

Inspection

APLSP contains a UV trace, which allows inspection of the PCB after coating to ensure complete and even coverage. The stronger the reflected UV light, the thicker the coating layer is. UV light in the region of 375nm should be used for inspection.

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