

## 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 selective spray applications and meets the requirements of a variety of international standards.

- Promotes efficient production processes; ready to use for 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-2 Compliant (2011/65/EU):**  
**MIL Approval (MIL-1-46058C):**  
**IPC-CC-830:**

**Yes**  
**Meets approval**  
**Meets approval**

#### Liquid Properties

Appearance:	Pale Coloured Liquid
Density @ 20°C (g/ml):	0.90
VOC Content:	77%
Flash Point:	-7°C
Solids content:	23%
Viscosity @ 20°C (mPa s):	60-100
Touch Dry:	15-20 minutes.
Recommended Drying Time:	24 Hours @ 20°C 4 Hours @ 60°C 2 Hours @ 90°C
Coverage @ 25µm:	9m <sup>2</sup> per litre

#### Dry Film Coating

Colour:	Colourless
Operating Temperature Range:	-55°C to +125°C
Flammability:	Meets UL94 V-1
Thermal Cycling (MIL-1-46058C):	Meets approval
Coefficient of Expansion:	130ppm
Dielectric Strength:	45kV/mm
Dielectric Constant:	2.5
Surface Insulation Resistance:	1 x 10 <sup>15</sup> Ω
Comparative Tracking Index:	>300 Volts
Dissipation Factor @ 1MHz @ 25°C:	0.01
Moisture Resistance (MIL-1-46058C):	Meets approval

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

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.

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BS EN ISO 9001:2008  
 Certificate No. FM 32082

<u>Description</u>	<u>Packaging</u>	<u>Order Code</u>	<u>Shelf Life</u>
<u>APLSP Conformal Coating</u>	25 Litre Bulk	APL25LSP	48 Months
<u>Removal Solvent</u>	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 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. Fluorescence emission will occur between 400-500nm; peak emission is around 440nm.

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