## Conformal Coatings

# Technical Data Sheet





Page 1

### **APCSP**

## Acrylic Protective Lacquer (Fast-Dry, Spraying Viscosity)

APCSP is a flexible, very fast drying acrylic conformal coating, formulated to offer the correct viscosity for selective coating and spray applications. This product has been formulated for professional use only.

- Transparent coating; offers good clarity in a range of different environments
- Enables efficient coating application; fast drying and no dilution required
- Ideal for applications requiring rework; can be removed with Electrolube ULS
- Fluoresces under UV light for simple coating inspection, either by manual or automated processes

Approvals	RoHS Compliant (2015/863/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):	0.78
	VOC Content:	75%
	Flash Point:	-7°C
	Solids content:	25%
	Viscosity @ 23°C:	26-31 seconds (ISO 2431: Cup #4) ~ 70mPa s (Brookfield)
	Touch Dry:	5-10 minutes
	Recommended Curing Time:	24 Hours @ 20°C
	3	4 Hours @ 60°C
		2 Hours @ 90°C
	Coverage @ 25µm:	11m <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  $1 \times 10^{15} \Omega$ Surface Insulation Resistance: Comparative Tracking Index: >300 Volts

Dissipation Factor @ 1MHz @ 25°C: 0.01

Moisture Resistance (MIL-1-46058C): Meets approval

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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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Page 2

<u>Description</u>	<u>Packaging</u>	Order Code	Shelf Life
APCSP Conformal Coating	5 Litre Bulk	APCSP05L	24 Months
Removal Solvent	200ml Aerosol 400ml Aerosol 1 Litre Bulk 5 Litre Bulk 25 Litre Bulk	ULS200D ULS400D ULS01L ULS05L ULS25L	36 Months 36 Months 72 Months 72 Months 72 Months

#### **Directions for Use**

APCSP has been specifically formulated to give viscosities between 26-31 seconds using a flow cup ISO 2431 #4 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 APCSP. 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

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

APCSP 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**

APCSP 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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