Conformal Coatings

Technical Data Sheet





Page 1

HPASP High Performance Acrylic (Spraying Viscosity)

HPASP is a high performance acrylic conformal coating specifically designed to meet the demanding requirements of many applications found in the defence and aerospace industries. HPASP has been formulated at the required viscosity for selective spraying applications and is for professional use only.

- Improves production efficiency; ready to use, no dilution required
- Transparent coating with excellent clarity; ideal for LED applications and those exposed to UV light
- High adhesion to a wide variety of substrates and resistant to mould growth
- Ideal for applications requiring rework; can be removed with Electrolube ULS

Approvals	RoHS-2 Compliant (2011/65/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:	10m ² per litre
Dry Film Coating	Colour: Operating Temperature Range: Flammability: Thermal Cycling (MIL-1-46058C): Coefficient of Expansion: Dielectric Strength: Dielectric Constant: Surface Insulation Resistance: Comparative Tracking Index Dissipation Factor @ 1MHz @ 25°C:	Colourless -55°C to +125°C Meets UL94 V-1 Meets approval 130ppm 45 kV/mm 2.5 1 x 10^{15} Ω >300 Volts 0.01

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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.

Moisture Resistance (MIL-1-46058C):

Meets approval

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Page 2

<u>Description</u>	<u>Packaging</u>	Order Code	Shelf Life
HPASP Conformal Coating	25 litre Bulk	HPA25LSP	48 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

HPASP has been specifically formulated to provide 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 25-75 microns). Temperatures of less than 16°C or relative humidity in excess of 75% are unsuitable for the application of HPA. 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

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

HPASP 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

HPASP 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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