Conformal Coatings

Technical Data Sheet



Page 1

APLF Acrylic Protective Lacquer – Film Coat

APLF is free from aromatic solvents and supplied ready for use with airless, film-coating techniques. APLF is a flexible, fast drying transparent acrylic conformal coating, used for the protection of electronic circuitry. It has been formulated for professional use only and meets the requirements of a variety of international standards.

- Cost effective material with fast touch dry time, allowing efficient application processes
- 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): Yes

MIL Approval (MIL-I-46058C): Meets Requirements IPC-CC-830: Meets Requirements

Liquid Properties Appearance: Pale Coloured Liquid

Density @ 20° C (g/ml): 0.87 VOC Content: 75% ± 2% Flash Point: -7°C Solids Content: 25 ± 2% Viscosity (mPa s @ 20° C): 150 ± 20 Touch Dry (200 µm wet): 10-15 minutes Recommended Curing Time: 24 Hours @ 20° C

30 mins @ 80°C

Coverage @ 25µm: 10m² per litre

Dry Film Coating Colour: Colourless

Operating Temperature Range: -55°C to +125°C

Flammability: Self-extinguishing (ASTM Method D635)

Meets UL94-V1 Meets requirements

Thermal Cycling (MIL-I-46058C): Meets requi Coefficient of Expansion: 130ppm Dielectric Strength: 45kV/mm

Dielectric Constant: 2.5 Surface Insulation Resistance: $1 \times 10^{15} \Omega$ Comparative Tracking Index: >300 Volts

Dissipation Factor @ 1MHz @ 25°C: 0.01

Moisture Resistance (MIL-I-46058C): Meets requirements

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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
APLF Conformal Coating	5 Litre Bulk	APLF05L	48 Months
Fast Drying Thinners	5 Litre	FTH05L	72 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

APLF can be sprayed, dipped or brushed, however, the material is formulated for selective coating by film-coating technique. The thickness of the coating depends on the method of application (typically 25-75 microns). Temperatures of less than 16°C or relative humidity in excess of 75% are unsuitable for the application of APLF. 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 to ensure satisfactory adhesion. Flux residues should be removed tom ensure they do not compromise the protection afforded by the coating. Electrolube manufacture a range of cleaning products using both hydrocarbon solvent and aqueous technology.

Selective Coating

APLF is formulated specifically for, and supplied ready to be used with non-atomised, airless film-coater technologies. Specific settings will depend on specific machine, nozzle size, and board design. Electrolube are able to offer starting point suggestions for your specific case.

Inspection

APLF contains a UV trace, which allows inspection of the PCB after coating to ensure complete and even coverage; the stronger and more uniform the fluorescence, the thicker and more uniform the coating layer is. UV light in the region of 350-400 nm should be used for inspection.

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