Conformal Coatings Technical Data Sheet



2K300 Two-Component Polyurethane Coating

2K300 is a high performance two-component conformal coating, designed specifically for selective coating processes. 2K300 is characterised by greater coating thickness and enhanced edge coverage and shows extreme flexibility and extremely low stress on components.

- Improved high temperature performance coating
- Hydrophobic; excellent resistance to humidity, condensation and immersion in water
- Soft coating; provides low stress during typical automotive thermal shock cycles
- High coating thickness achievable; enhanced edge coverage

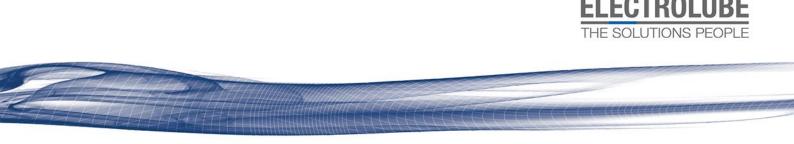
Approvals	RoHS Compliant (2015/863EU): REACH Compliant: IPC-CC-830:	Yes Yes Meets Requirements
Liquid Properties	Appearance: Density @ 20°C: Flash Point: Min. Solids Content (1hr @80°C): Mix Ratio: Viscosity (mixed) @ 20°C: Useable Life @ 20°C: Touch Dry Time at 20°C: Recommended Drying Time:	Clear yellow/amber liquid 0.93 g/ml (mixed) >100°C >98.5% 5:1 v/v 1500-2000mPa s 40 Minutes 240 Minutes 10 Minutes @ 80°C
Dry Film Coating	Colour: Recommended Coating Thickness: Temperature Range: Thermal Shock Range: Thermal Shock (1000 cycles): Shore Hardness: Glass Transition Temperature (Tg): Elongation at Break (BS EN ISO 537): Elastic Modulus Tensile Strength Dielectric Strength: Dielectric Constant: Dissipation Factor @ 1MHz, 25°C: Surface Insulation Resistance: Moisture Resistance (IPC-CC-830): *Other thermal shock regimes are also possible, i	Pale yellow, transparent 100-300 μ m -65 to +150°C -65 to +140°C No cracking, blistering or delamination* A20-30 -59°C (DMA) 40-50% 5.22 MPa @ -40°C 2.67 MPa @ 20°C 2.96 MPa @ 130°C 0.9 MPa @ 20°C 90 kV/mm 2.5 0.01 2 x 10 ¹⁶ Ω 1.63 x 10 ¹⁰ Ω i.e. different temperatures, number of cycles, etc.

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Description	Packaging	Order Code	
2K300 Conformal Coating Part A	5 Litre	E2K3005L	
2K Part B 1L	1 Litre	E2KPBO01L	
2K Part B 5L	5 Litre	E2KPBO05L	

Directions for Use

2K300 is intended to be applied by selective spray coating. It is recommended that the use of a high accuracy, volumetric metering system, such as progressive cavity pumps are used to control the mix ratio of the two components. It is recommended that a minimum 10 turn static mixer is used to ensure complete mixing of the two components prior to reaching the dispense valve. The use of a heated applicator block can result in reduced film builds and faster cycle times. 60°C is a typical set-point.

The material works best when a relatively high flow rate and low atomising air combination is used, but this will depend on the design of the assembly, required cycle times and other process considerations. Machine settings for various 2K selective spraying options are available upon request.

Inspection

2K300 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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