Conformal Coatings Technical Data Sheet



PROVISIONAL TDS

2K350 Two-Component Polyurethane Coating

2K350 is a high performance two-component, solvent-free conformal coating, designed specifically for selective coating processes. 2K350 is characterised by greater coating thickness, enhanced edge coverage and shows extreme flexibility, outstanding solvent resistance and extremely low stress on components.

- Improved high temperature performance, also meets UL94 V-0
- 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 for better protection

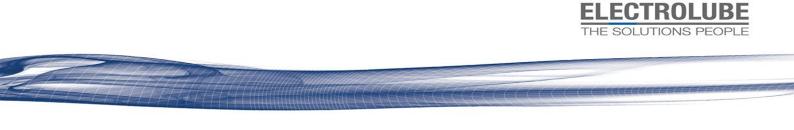
Approvals	RoHS-2 Compliant (2015/863/EU): REACH Compliant: IPC-CC-830: UL746	Yes Yes Meets Requirements Meets UL94 V-0
Liquid Properties	Appearance: Density @ 20°C: Flash Point: Mix Ratio: Viscosity (mixed) @ 25°C: Useable Life @ 20°C: Touch Dry Time at 20°C: Recommended Drying Time: Min. Solids Content (1hr @80°C):	Blue Liquid 1.12 g/ml (mixed) >100°C 8.6:1 by volume 8000 40 Minutes 240 Minutes 10 Minutes @ 80°C 98.5%
Dry Film Coating	Colour: Recommended Coating Thickness: Temperature Range: Thermal Shock Range: Thermal Shock (1000 cycles): Softening Temperature Flammability: Shore Hardness: Elongation at Break (ASTM D638 IV) Dielectric Strength: Dielectric Constant: Surface Insulation Resistance: Dissipation Factor @ 1MHz, 25°C: Moisture Resistance (IPC-CC-830):	Blue $100-300\mu m$ $-65 \text{ to } +150^{\circ}\text{C}$ $-65 \text{ to } +140^{\circ}\text{C}$ No cracking, blistering or delamination >125°C Meets UL94 V-0 A55 100% 90 kV/mm 2.5 1 x 10 ¹⁵ Ω 0.01 1.63 x 10 ¹⁰ Ω

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Directions for Use

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2K350 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 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 recirculation system, or 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.

Inspection

2K350 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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