

2K550

PROVISIONAL TDS

Two-Component Polyurethane Coating

2K550 is a flame retardant, tough yet flexible, high performance two-component, solvent-free conformal coating, designed specifically for selective coating processes. 2K550 is characterised by greater coating thickness and enhanced edge coverage and shows improved adhesion, hardness and scratch resistance when compared to conventional single component coatings.

- Flame retardant and transparent at thicknesses below 350µm; provides resistance to discolouration
- Excellent resistance to humidity, condensation and immersion in water
- Coating exhibits excellent adhesion and hardness; low stress during automotive thermal shock cycles
- High coating thickness achievable; enhanced edge coverage

Approvals

RoHS-2 Compliant (2011/65/EU):
REACH Compliant:
IPC-CC-830:
UL746

Yes
Yes
Meets Requirements
Meets UL94 V-0

Liquid Properties

| | |
|----------------------------------|----------------------------|
| Appearance: | Hazy White Coloured Liquid |
| Density @ 20°C (g/ml): | 1.13 (mixed) |
| Flash Point: | >100°C |
| Mix Ratio: | 1.33:1 by volume |
| Mixed System Viscosity @ 25°C: | 2500-3000 mPa.s |
| Useable Life @ 20°C: | 45 Minutes |
| Touch Dry Time at 20°C: | 120 Minutes |
| Recommended Drying Time: | 10 Minutes @ 80°C |
| Min. Solids Content (1hr @80°C): | 99% |

Dry Film Coating

| | |
|-----------------------------------|---|
| Colour: | Clear/Colourless |
| Recommended Coating Thickness: | 150-350µm |
| Thermal Shock Range: | -65 to +125°C* |
| Thermal Shock (1000 cycles): | No cracking, blistering or delamination |
| Softening Temperature | >125°C |
| Flammability: | Meets UL94 V-0 |
| Shore Hardness: | A95 |
| Glass Transition Temperature (Tg) | 29°C (DMA) |
| Dielectric Strength: | 65 kV/mm |
| Dielectric Constant: | 2.5 |
| Surface Insulation Resistance: | 1 x 10 ¹⁵ Ω |
| Dissipation Factor @ 1MHz, 25°C: | 0.01 |
| Moisture Resistance (IPC-CC-830): | 1 x 10 ¹⁰ Ω |

*Other thermal shock regimes are also possible, i.e. different temperatures, number of cycles, etc.

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

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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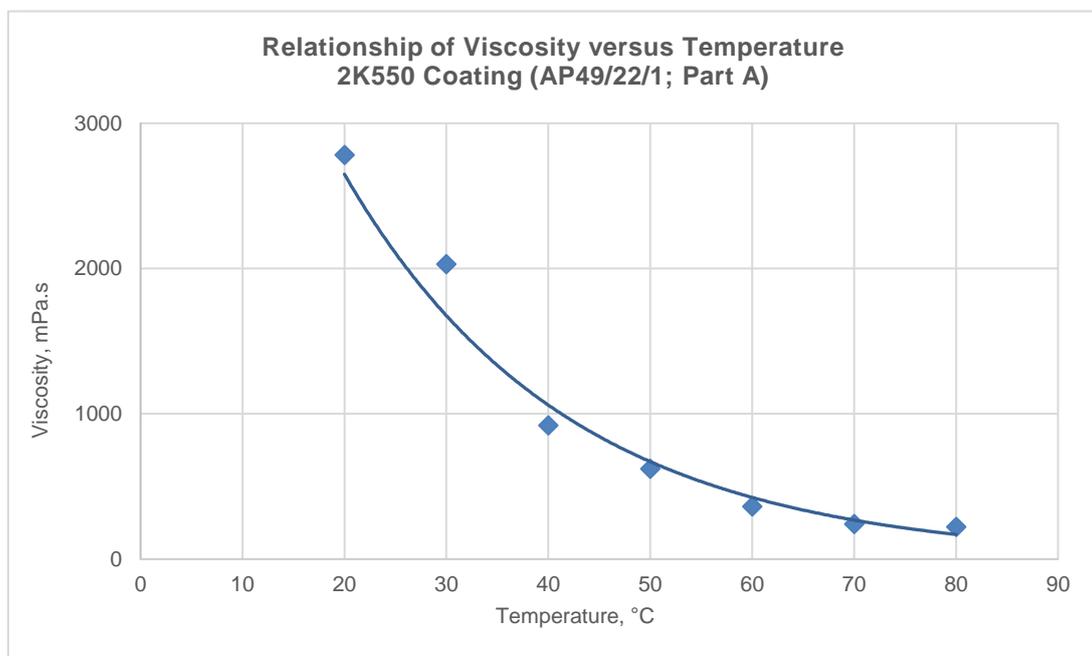
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BS EN ISO 9001:2008
 Certificate No. FM 32082

Directions for Use

2K550 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. The following graph indicates the reduction in viscosity of the Part A with temperature:



Inspection

2K550 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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