

# HumiSeal 1A33/521 PB25™ Urethane Conformal Coating

## Technical Data Sheet

HumiSeal 1A33/521 PB25™ is a fast curing, single component, polyurethane conformal coating that has been formulated for use in automated spray equipment without requiring additional thinning. HumiSeal 1A33/521 PB25™ demonstrates excellent flexibility, fluoresces under UV light for ease of inspection and is easily repaired.

### Properties of HumiSeal 1A33/521 PB25™

Density, g/cm <sup>3</sup> per ASTM, Meth. D1475	0.93 ± .02
Solids Content, % by weight per Fed-Std-141, Meth. 4044	36 ± 1
Viscosity, centipoise per Fed-Std-141, Meth. 4287	25 ± 3
VOC, grams/litre	569
Drying Time to Handle per Fed-Std-141, Meth. 4061	15 minutes
Recommended Coating Thickness, microns	25 - 75
Optional Curing Conditions to Reach Optimum Properties	30 days at RT 30 hours @ 76°C 20 hours @ 88°C
Recommended Stripper	HumiSeal Stripper 1063
Shelf Life at Room Temperature, DOM	24 months
Thermal Shock, 50 cycles per MIL-I-46058C	-65°C to 125°C
Coefficient of Thermal Expansion - TMA	193 ppm/°C
Glass Transition Temperature - DSC	26°C
Modulus - DMA	27.2 MPa
Flammability, per UL 94	HB
Dielectric Withstand Voltage, volts per MIL-I-46058C	>1,500
Dielectric Breakdown Voltage, volts per ASTM, Meth. D149	7500
Dielectric Constant, at 1MHz and 25°C per ASTM-D150-65T	3.6
Dissipation Factor, at 1MHz and 25°C per ASTM-D150-65T	0.03
Insulation Resistance, ohms per MIL-I-46058C	200 x 10 <sup>12</sup> (800T)
Moisture Insulation Resistance, ohms per MIL-I-46058C	16 x 10 <sup>9</sup> (16G)
CTI, PLC per UL746E @ 600 volts	0
Fungus Resistance, per ASTM-G21	Passes

### Application of HumiSeal 1A33/521 PB25™

Cleanliness of the substrate is of extreme importance for the successful application of a conformal coating. Surfaces must be free of moisture, dirt, wax, grease, flux residues and all other contaminants. Contamination under the coating could cause problems that may lead to assembly failures.

#### Spraying

HumiSeal 1A33/521 PB25™ can be sprayed using automated spraying equipment. Spraying should be done in an environment with adequate ventilation so that the vapour and mist are carried away from the operator.

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### Storage

HumiSeal 1A33/521 PB25™ should be stored away from excessive heat or cold, in tightly closed containers. HumiSeal products may be stored at temperatures of 0 to 35°C. Prior to use, allow the product to equilibrate for 24 hours at a room temperature of 18 to 32°C.

### Caution

The solvents in HumiSeal 1A33/521 PB25™ are flammable. Material should not be used in presence of open flame or sparks. Use only in well-ventilated areas to avoid inhalation of vapours or spray. Avoid contact with skin and eyes. Consult MSDS prior to use.

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