

# HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60

## Synthetic Rubber Conformal Coating

### Technical Data Sheet

HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60 is a fast drying, single component, synthetic rubber conformal coating that contains methylcyclohexane solvent that is more environmentally friendly than traditional solvents. The coating demonstrates excellent flexibility, low stress on components, fluoresces under UV for ease of inspection and is easily repaired. HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60 is sold as a ready-to-spray preblended product and requires no further dilution. HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60 is in full compliance with the RoHS Directive 2002/95/EC.

#### Properties of HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60

Density, per ASTM D1475	0.81 ± 0.02 g/cm <sup>3</sup>
Solids Content, % by weight per Fed-Std-141, Meth. 4044	15 ± 2 %
Viscosity, per Fed-Std-141, Meth. 4287	60 ± 5 centipoise
VOC	691 grams/litre
Drying Time to Handle per Fed-Std-141, Meth. 4061	10 minutes
Recommended Coating Thickness	25 - 75 microns
Recommended Curing Conditions	24 hrs @ RT or 30 min @ 76°C
Time Required to Reach Optimum Properties	7 days
Recommended Stripper	HumiSeal <sup>®</sup> Stripper 1080
Shelf Life at Room Temperature, DOM	12 months
Thermal Shock, 50 cycles per MIL-I-46058C	-65°C to 125°C
Coefficient of Thermal Expansion - TMA	55 ppm/°C
Glass Transition Temperature - DSC	14°C
Modulus - DMA	93.1 MPa @ -20°C 73.5 MPa @ 0°C 35.3 MPa @ 20°C
Moisture Vapor Transmission, per ASTM E398-03	<1 g/m <sup>2</sup> · day · mil
Dielectric Withstand Voltage, per MIL-I-46058C	>1500 volts
Dielectric Breakdown Voltage, per ASTM D149	4900 volts
Dielectric Constant, at 1MHz and 25°C per ASTM D150-98	2.5
Dissipation Factor, at 1MHz and 25°C per ASTM D150-98	0.07
Insulation Resistance, per MIL-I-46058C	2.0 x 10 <sup>14</sup> ohms (200TΩ)
Moisture Insulation Resistance, per MIL-I-46058C	1.0 x 10 <sup>10</sup> ohms (10GΩ)
Fungus Resistance, per ASTM G21	Passes

#### Application of HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60

Cleanliness of the substrate is of extreme importance for the successful application of a conformal coating. Contamination under the coating could cause problems that may lead to assembly failures. For best performance, surfaces should be free of moisture, dirt, wax, grease, flux residues and all other contaminants. If this product will be applied over "no clean" assembly materials, the user should conduct adequate testing to verify compatibility and reliability of the coated assembly.

#### Spraying

HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60 can be sprayed using conventional spraying equipment. Spraying should be done in an environment with adequate ventilation so that the vapor and mist are carried away from the operator.

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### Storage

HumiSeal<sup>®</sup> 1B51NSLU/521EU PB60 should be stored away from excessive heat or cold, in tightly closed containers. HumiSeal<sup>®</sup> 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

Application of HumiSeal<sup>®</sup> Conformal Coatings should be carried out in accordance with local and National Health and Safety regulations.

The solvents in HumiSeal<sup>®</sup> Conformal Coatings 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/SDS prior to use.

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