

# HumiSeal<sup>®</sup> 1A33/521 PB25 Urethane Conformal Coating

## Technical Data Sheet

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

### Properties of HumiSeal<sup>®</sup> 1A33/521 PB25

Density, per ASTM D1475	0.93 ± 0.02 g/cm <sup>3</sup>
Solids Content, % by weight per Fed-Std-141, Meth. 4044	36 ± 1 %
Viscosity, per Fed-Std-141, Meth. 4287	25 ± 3 centipoise
VOC	569 grams/litre
Drying Time to Handle per Fed-Std-141, Meth. 4061	15 minutes
Recommended Coating Thickness	25 - 75 microns
Optional Curing Conditions to Reach Optimum Properties	30 days at RT 30 hours @ 76°C 20 hours @ 88°C
Recommended Stripper	HumiSeal <sup>®</sup> 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
Dielectric Withstand Voltage, per MIL-I-46058C	>1500 volts
Dielectric Breakdown Voltage, per ASTM D149	7500 volts
Dielectric Constant, at 1MHz and 25°C per ASTM D150-98	3.6
Dissipation Factor, at 1MHz and 25°C per ASTM D150-98	0.03
Insulation Resistance, per MIL-I-46058C	2.0 x 10 <sup>14</sup> ohms (800TΩ)
Moisture Insulation Resistance, per MIL-I-46058C	1.6 x 10 <sup>10</sup> ohms (16GΩ)
CTI, per UL746E @ 600 volts	0 PLC
Fungus Resistance, per ASTM G21	Passes

### Application of HumiSeal<sup>®</sup> 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<sup>®</sup> 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.

## HumiSeal<sup>®</sup> 1A33/521 PB25 Technical Data Sheet

### Storage

HumiSeal<sup>®</sup> 1A33/521 PB25 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.

## Contact HumiSeal<sup>®</sup>

### HumiSeal North America

201 Zeta Drive  
Pittsburgh, PA 15238  
USA  
Tel: +1 412-828-1500  
Toll Free (US only): 866-828-5470  
[sales@humiseal.com](mailto:sales@humiseal.com)

### HumiSeal Technical Center

295 University Avenue  
Westwood, MA 02090  
USA  
Tel: +1 781-332-0734  
Fax: +1 781-332-0703  
[techsupport@humiseal.com](mailto:techsupport@humiseal.com)

### HumiSeal Europe

505 Eskdale Road, IQ Winnersh  
Berkshire RG41 5TU  
UK  
Tel: +44 (0)1189 442 333  
Fax: +44 (0)1189 335 799  
[europesales@chasecorp.com](mailto:europesales@chasecorp.com)

### HumiSeal Europe Support

Tel: +44 (0)1189 442 333  
Fax: +44 (0)1189 335 799  
[europetechsupport@chasecorp.com](mailto:europetechsupport@chasecorp.com)

### HumiSeal S.A.R.L

4/6 Avenue Eiffel  
78420 Carrieres-Sur-Seine  
France  
Tel: +33 (0) 1 30 09 86 86  
Fax: +33 (0) 1 30 09 86 87  
[humiseal.sarl@chasecorp.com](mailto:humiseal.sarl@chasecorp.com)

### HumiSeal Asian Support

Tel: 852-9451-6434  
Fax: 852-2413-6289  
[asiatechsupport@humiseal.com](mailto:asiatechsupport@humiseal.com)

The information contained here is provided for product selection purposes only and is not to be considered specification or performance data. Under no circumstance will the seller be liable for any loss, damage, expense or incidental or consequential damage of any kind arising in connection with the use or inability to use its product. Specific conditions of sale and Chase's limited warranty are set out in detail in Chase Corporation Terms and Conditions of Sale. Those Terms and Conditions are the only source that contain Chase's limited warranty and other terms and conditions.