HumiSeal® 1A33PB64 Urethane Conformal Coating
Technical Data Sheet

HumiSeal® 1A33PB64 is a single component polyurethane conformal coating that has been formulated for use in automated spray equipment without requiring additional thinning. HumiSeal® 1A33PB64 demonstrates excellent flexibility, fluoresces under UV light for ease of inspection and is easily repaired.

Properties of HumiSeal® 1A33PB64

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density, per ASTM D1475</td>
<td>0.93 ± 0.02 g/cm³</td>
</tr>
<tr>
<td>Solids Content, % by weight per Fed-Std-141, Meth. 4044</td>
<td>39 ± 2 %</td>
</tr>
<tr>
<td>Viscosity, per Fed-Std-141, Meth. 4287</td>
<td>64 ± 3 centipoise</td>
</tr>
<tr>
<td>VOC</td>
<td>559 grams/litre</td>
</tr>
<tr>
<td>Drying Time to Handle per Fed-Std-141, Meth. 4061</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Recommended Coating Thickness</td>
<td>25 - 75 microns</td>
</tr>
<tr>
<td>Optional Curing Conditions to Reach Optimum Properties</td>
<td></td>
</tr>
<tr>
<td>Recommended Stripper</td>
<td>HumiSeal® Stripper 1063</td>
</tr>
<tr>
<td>Shelf Life at Room Temperature, DOM</td>
<td>24 months</td>
</tr>
<tr>
<td>Thermal Shock, 50 cycles per MIL-I-46058C</td>
<td>-65 °C to 125 °C</td>
</tr>
<tr>
<td>Coefficient of Thermal Expansion - TMA</td>
<td>193 ppm/°C</td>
</tr>
<tr>
<td>Glass Transition Temperature - DSC</td>
<td>26 °C</td>
</tr>
<tr>
<td>Modulus - DMA</td>
<td>27.2 MPa</td>
</tr>
<tr>
<td>Dielectric Withstand Voltage, per MIL-I-46058C</td>
<td>&gt;1500 volts</td>
</tr>
<tr>
<td>Dielectric Breakdown Voltage, per ASTM D149</td>
<td>7500 volts</td>
</tr>
<tr>
<td>Dielectric Constant, at 1MHz and 25 °C per ASTM D150-98</td>
<td>3.6</td>
</tr>
<tr>
<td>Dissipation Factor, at 1MHz and 25 °C per ASTM D150-98</td>
<td>0.03</td>
</tr>
<tr>
<td>Insulation Resistance, per MIL-I-46058C</td>
<td>2.0 x 10¹⁴ ohms (800TΩ)</td>
</tr>
<tr>
<td>Moisture Insulation Resistance, per MIL-I-46058C</td>
<td>1.6 x 10¹⁰ ohms (16GΩ)</td>
</tr>
</tbody>
</table>

Application of HumiSeal® 1A33PB64

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® 1A33PB64 can be sprayed using automated spraying equipment. Spraying should be done in an environment with adequate ventilation so that the vapor and mist are carried away from the operator.
Storage
HumiSeal® 1A33PB64 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
Application of HumiSeal® Conformal Coatings should be carried out in accordance with local and National Health and Safety regulations.

The solvents in HumiSeal® 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.