Technical Data Sheet
Secondary Insulation

RanVar™ B142-1
Solvent-Borne Impregnating Resin
Product Description

RanVar™ B142-1 is a solvent-borne, heat-cured, modified polyester impregnating resin.

Areas of Application

Aircraft generators and motors
Specialty and standard dry transformers
Integral horsepower motors (5 – 500 hp)
General-purpose rewinding

Features and Benefits

- High bond strength at elevated temperature
- Low viscosity for excellent penetration
- Excellent tank stability
- Meets Siemens specification 32102GT
- Class 180 performance over MW35 wire

Application Methods

- Dip-and-Bake
- Roll-through

Transportation / Storage

Store below 25°C / 77°F in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for twelve (12) months from the date of shipment.

Failure to store this product as recommended above may lead to deterioration in product performance.

Keep containers tightly sealed to minimize evaporation

Mix product thoroughly before use

Health / Safety

Refer to the Material Safety Data Sheet.

Typical Properties of Material as Supplied

<table>
<thead>
<tr>
<th>Property</th>
<th>Conditions</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>25°C / 77°F</td>
<td>150 - 350</td>
<td>cP</td>
</tr>
<tr>
<td>Non-Volatile Content</td>
<td>1½ g – 3 h – 135°C</td>
<td>47 – 49</td>
<td>%</td>
</tr>
<tr>
<td>Weight per Gallon</td>
<td>25°C / 77°F</td>
<td>8.0 – 8.4</td>
<td>pounds</td>
</tr>
<tr>
<td>Viscosity Reducer</td>
<td>ELAN-Plus™ BS-107 Reducer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>ASTM D93</td>
<td>26 / 79</td>
<td>°C / °F</td>
</tr>
<tr>
<td>Volatile Organic Content</td>
<td>ASTM D3960</td>
<td>4.5 [1]</td>
<td>pounds/gallon</td>
</tr>
</tbody>
</table>

[1] VOC test methods and limits vary widely by regulatory jurisdiction and product application. The value above was obtained by curing a thin film under specific laboratory conditions (0.5 grams - 1 hour - 110°C). Contact your ELANTAS PDG representative regarding alternate methods.
Curing Schedule


Cure for 2 hours at 163°C / 325°F – or –

4 hours at 149°C / 300°F

The cure schedules above are based on time after the unit reaches the specified temperature and are recommendations only. The user is responsible for determining the optimum cure conditions for his application.

Typical Mechanical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Conditions</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helical Coil Bond Strength over MW 35</td>
<td>ASTM D2519</td>
<td>25°C / 77°F</td>
<td>40</td>
<td>pounds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150°C / 302°F</td>
<td>14</td>
<td>pounds</td>
</tr>
</tbody>
</table>

Typical Electrical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Conditions</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dielectric Strength</td>
<td>ASTM D149</td>
<td>2.5 mils – 25°C / 77°F</td>
<td>3900</td>
<td>volts/mil</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>ASTM D149</td>
<td>2.5 mils – 25°C / 77°F After 24 hours in water</td>
<td>1800</td>
<td>volts/mil</td>
</tr>
</tbody>
</table>

The above properties are typical values and are not intended for specification use.

ELANTAS PDG, Inc. warrants the chemical composition of its products within stated tolerances, but does not guarantee that a product will be appropriate for any particular application. Any recommendation, performance of tests or suggestion is offered merely as a guide and is not a substitute for a thorough evaluation by the user. No representative of ELANTAS PDG, Inc. has the authority to offer a warranty that a product will perform satisfactorily in manufacturing a product and no such representation should be relied upon.