

**Technical Data Sheet**

**Secondary Insulation**

## **Sterling<sup>®</sup> E 300 HB Thixo**

**Single-Component Epoxy Resin**

# Sterling® E 300 HB Thixo

### Product Description

Sterling® E 300 HB Thixo is a single-component, heat-cured, epoxy bonding resin.

### Areas of Application

Wet-winding of rotating or stationary field coils

Impregnation, bonding and sealing of electrical and mechanical components

### Features and Benefits

- Outstanding bond strength
- Good chemical resistance
- No catalyst required
- Highly thixotropic for minimal run-off
- Thermal ratings up to Class 180

### Application Methods

- Mix thoroughly before use
- Warm resin to 30-40°C / 86-104°F. Apply with stiff brush, spatula or notched spreader.

Do not exceed 40°C / 104°F. Do not warm more material than can be used within a few hours

### 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 three (3) months from the date of shipment.

Usable life may be extended by refrigerated storage at 5°C / 41°F.

### Health / Safety

Refer to the Material Safety Data Sheet.

### Typical Properties of Material as Supplied

Property	Conditions	Value	Units
Viscosity	25°C / 77°F – 2 rpm	500,000 – 750,000	cP
Viscosity	25°C / 77°F – 20 rpm	140,000 - 200,000	cP
Gel Time	150°C / 302°F	8 – 15	minutes
Weight per Gallon	25°C / 77°F	12.3 - 12.7	pounds
Flash Point	ASTM D93	> 94 > 201	°C °F

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## Curing Schedule

For optimum properties, cure 16 hours at 150°C / 302°F. A post-cure of 4 hours at 180°C / 356°F will increase the heat deflection temperature approximately 15°C.

For non-critical applications, cure 4-6 hours at 150°C / 302°F.

Cure cycle is based on time after unit reaches specified temperature

## Typical Mechanical Properties

**Specimen cured sixteen hours at 150°C / 302°F – single dip**

Property	Conditions	Value	Units
Hardness	Shore D – 25°C / 77°F	90	
Heat Deflection Temp.		150	°C
Helical Coil Bond Strength ASTM D2519 over MW 35	25°C / 77°F	72	Pounds pounds
	150°C / 302°F	30	

## Typical Electrical Properties

**Specimen cured sixteen hours at 150°C / 302°F**

Property	Conditions	Value	Units
Dielectric Strength	ASTM D149 – 4 mils	1500	volts/mil
Dielectric Strength	ASTM D149 – 4 mils After 24 hours in water	1300	volts/mil
Volume Resistivity	ASTM D257 – 25°C / 77°F	1.0 x 10 <sup>12</sup>	ohm-cm ohm-cm
	ASTM D257 – 100°C / 212°F	2.0 x 10 <sup>11</sup>	

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

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