ELANTAS
Electrical Insulation

Technical Data Sheet

Secondary Insulation

Sterling® E 069 Thixo

Single-Component Thixotropic Epoxy Resin

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Sterling® E 069 Thixo

Product Description

Sterling® E 069 Thixo is a single-component, heat-cured, 100%-solids epoxy impregnating resin.

Areas of Application

Impregnation and encapsulation of motor stators

Features and Benefits

- High Build
- Low run-off
- Fiber-reinforced for toughness and thermal shock resistance
- Chemical and moisture resistant
- No catalyst required

Application Methods

- Vacuum-Pressure Impregnation

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.

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

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

For best results, VPI storage tanks should have a replenishment rate of 10% or more per month and employ cooling systems to maintain the resin at 20°C / 68°F or below.

Mix thoroughly before use

Health / Safety

Refer to the Material Safety Data Sheet.

Typical Properties of Material as Supplied

Property	Conditions	Value	Units
Viscosity - 2 rpm	25°C / 77°F	25,000 - 55,000	cP
Viscosity - 20 rpm	25°C / 77°F	6,500 - 11,000	cP
Weight per Gallon	25°C / 77°F	9.8 - 10.2	pounds
Sunshine Gel Time	150°C / 302°F	12 - 17	minutes
Flash Point	ASTM D93	> 94 > 201	°C °F

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Application / Curing Schedule

Preheat units, as necessary, to remove moisture and set tapes. Allow units to cool to 38 – 49°C / 110 – 120°F before immersion to promote good penetration while not overheating the resin.

Cure VPI-treated units for 6 hours at 149°C / 300°F - or -
4 hours at 163°C / 325°F

Cure schedule is based on time after unit reaches specified temperature

Typical Mechanical Properties

Specimens cured 4 hours at 163°C / 325°F

Property	Conditions	Value	Units
Film Build		10 - 13	mils
Helical Coil Bond Strength ASTM D2519 over MW 35	25°C / 77°F 150°C / 302°F	81 14	pounds pounds
Hardness	Shore D – 25°C / 77°F	84	

Typical Electrical Properties

Property	Conditions	Value	Units
Dielectric Strength	ASTM D149	1350	volts/mil
Dielectric Strength	ASTM D149 After 24 hours in water	1000	volts/mil
Dissipation Factor ASTM D150	1 kHz - 25°C / 77°F 1 kHz - 50°C / 77°F 1 kHz - 100°C / 212°F 1 kHz - 150°C / 302°F	.005 .005 .02 .99	
Dielectric Constant ASTM D150	1 kHz - 25°C / 77°F 1 kHz - 50°C / 77°F 1 kHz - 100°C / 212°F 1 kHz - 150°C / 302°F	3.0 3.0 3.2 4.7	
Volume Resistivity ASTM D257	25°C / 77°F	1.3×10^{16}	ohm-cm

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