

Technical Data Sheet

Secondary Insulation

Sterling[®] E 300 Thixo

Single-Component Epoxy Resin

Sterling® E 300 Thixo

Product Description

Sterling® E 300 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
- Thixotropic for low 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 – 20 rpm	90,000 - 120,000	cP
Gel Time	150°C / 302°F	8 – 15	minutes
Weight per Gallon	25°C / 77°F	11.7 - 12.1	pounds
Flash Point	ASTM D93	> 94 > 201	°C °F

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Curing Schedule

For best results, 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.

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

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
	150°C / 302°F	30	pounds

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 ¹²	ohm-cm
	ASTM D257 – 100°C / 212°F	2.0 x 10 ¹¹	ohm-cm

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.