

Technical Data Sheet
Secondary Insulation Impregnating Resin

ELAN-Guard™ EM 59-60MR Resin

Low viscosity single component epoxy hermetic resin

Description

EM 59-60MR is a single component water based hermetic resin. In the liquid state it is a white opaque liquid.

Uses

- Impregnation of small and large hermetic stators.

Cured Properties

EM 59-60MR has superior bond strength and resistance to all types of refrigerants.

Catalyst

None required.

Recommended Cure

4 hours at 150° C (300° F) - OR -

2 hours 165° C

After part reaches cure temperature

Features and Benefits

- Low viscosity
- Thinned with water
- UL recognized insulation systems from 130° C to 200° C
- Excellent stability
- Zero VOC

Application Methods

- Dip and Bake
- Roll dip

Transportation/Storage/Shelf Life

Caution: DO NOT FREEZE

This resin should be stored at 25°C (77°F) in a dry controlled environment out of direct sunlight. These materials 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 and invalidate shelf life. Agitate before use.

Properties of Material Supplied

<i>Test</i>	<i>Value</i>	<i>Units</i>
Viscosity @ 25°C (77°F) (ASTM D2196), typical	500 – 1500	Cp
Percent non-volatile matter (ASTM D115)	58 – 62	%
Flash Point (ASTM D93),typical	100 (212)	°C (°F)

TYPICAL PROPERTIES

Mechanical Properties – Cured 2 hours at 150°C (300°F), single dip

<i>Test</i>	<i>Value</i>	<i>Units</i>
Helical Coil Bond Strength @ 25°C (77°F) (ASTM D2519)	65	Pounds
Helical Coil Bond Strength @ 107°C (225°F) (ASTM D2519)	38	Pounds
Freon Resistance - NEMA RE-2	<1.0	%

Electrical Properties

<i>Test</i>	<i>Value</i>	<i>Units</i>
Dielectric Strength – AS MADE (ASTM D149)	3500	Volts/mil
Dielectric Strength after 24 hours in water (ASTM D149)	3200	Volts/mil
Film thickness	1.1	mils

UL Recognized Insulation Systems (E87039)

<i>Class</i>	<i>Systems</i>
Class 130	Sentry 130-I, 130-II, 130-III
Class 155	Sentry 155-I, MEGA II
Class 180	Sentry 180-V, 180-VI, 180-VII
Class 200	Sentry 200-I

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

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