

# STAR Technology

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## ER7159

### Secondary Insulation Impregnating Resin Water Base Hermetic Varnish

#### DESCRIPTION

ER7159 is a one-part heat cure epoxy emulsion in water. ER7159 contains no solvents and forms a non-dripping film coating once the water has evaporated. ER7159 was designed for use as a dipping varnish on hermetic general purpose motors and compressors. ER7159 was formulated to use with a variety of refrigerants and compressor oils while maintaining a low extractable value. ER7159 has superior physical strength while offering excellent electrical properties. Shake or stir well before using. ER7159 can only be used with a double insulated magnet wire.

Data contained herein are believed to be reliable. Fit-for-use testing should be conducted by each user.

#### BENEFITS

Zero VOC's  
Low Extractables  
Excellent Electrical Properties

#### PHYSICAL PROPERTIES:

	<u>TEST METHOD</u>	<u>VALUE</u>
Cure Time [150°C] (hours):		4
Cure Time [302°F] (hours):		4
Viscosity @ 50% Solids (cps):	ASTM D2393	100-200
Viscosity @ 25% Solids (cps):	ASTM D2393	20-40
Specific Gravity (g/cc):	ASTM D1475	1.07
Liquid Color:		White
Dry Color:		Clear
Shore Hardness (D):	ASTM D2240	80
Tg (°C):		125
Helical Coil Bond Strength:	ASTM D2519	
50% solids (N):		312
25% Solids (N):		241
Dielectric Breakdown Strength (V/mil):		>2500
Percent Solids (%):		15-50
Service Temperature (°C):		200
Shelf Life (months):		12

To the best of our knowledge, the information contained herein is accurate. However, STAR TECHNOLOGY, Inc., does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. The information contained herein is considered typical properties and is not intended to be used as specifications for our products. This information is offered solely to assist purchaser in selecting the appropriate products for purchaser's own testing. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein and in the material safety data sheet, we cannot guarantee that these are the only hazards that exist. Repeated and prolonged exposure to epoxy resins can cause sensitization or other allergic responses.

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#### **APPLICATION PROCEDURES**

Dip Method: Place part to be impregnated into a 150° C oven for 2 – 3 hours to ensure that it is completely dry. Allow the part to cool to 50° C (do not place part that is heated warmer than 50° C into resin as heating the resin will result in a shortened shelf life). Place the cooled part into the ER7159, 2 inches over the part for approximately 10 minutes or until all bubbling stops. Allow the part to drain for approximately 10 minutes. Cure the part for a minimum of 4 hours at 150° C or at least 2 hours at 165° C after part reaches cure temperature.

#### **PRECAUTIONS**

For industrial use only. Keep away from children. Refer to the Material Safety Data Sheets (MSDS forms) pertaining to this product before using. Avoid contact with skin or eyes. In the event of an eye splash or contact, immediately flush with cold water for 15 minutes and contact a physician. If skin contact occurs, wash with mild soap and water. The wearing of safety glasses with side shields and impervious gloves is recommended.

#### **RESIN AND HARDENER WARNING STATEMENT**

May cause allergic skin reaction. Avoid all contact with skin, eyes, and clothing. Wash thoroughly after handling.

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