

STAR Technology

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ER7478

High Build Impregnating Resin

DESCRIPTION

ER7478 is a single part heat cure epoxy designed for high build dip applications for transformers and armatures as well as a vacuum impregnation resin. ER7478 has a high build upon cure and has excellent noise reduction characteristics. Use brush, dip tank or automatic wet winding equipment for application.

ER7478 is currently available in 1 gallon pails, 5 gallon pails, 55 gallon drums and 330 gallon totes.

Shelf life can be extended by storing at 68°F (20°C). With normal use, regular monitoring and adequate additions of fresh material shelf life is indefinite. Recommended storage in VPI equipment is 68°F(20°C).

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

BENEFITS

100% solids
DOT Non-hazardous
High Build
Highly Thixotropic

TYPICAL PROPERTIES

	<u>TEST METHOD</u>	<u>VALUE</u>
Cure Time [150° C] (hours):		4-6
Gel Time [150° C] (minutes):		10-12
Film Build on Steel (mils):		2-4
Helical Coil Bond Strength		
25° C (Newtons):	ASTM D2519	150.1
120° C (Newtons):	ASTM D2519	18.32
Glass Transition Temperature (°C):		90
Solids (%):		100
Specific Gravity (g/cc):	ASTM D1475	1.10
Viscosity (cps):	ASTM D2393	3500
Color:		Natural
Dielectric Strength [0.3 mil thickness] (volts/mil):		3400
Dielectric Strength [2 mil thickness] (volts/mil):		1480
Dielectric Strength [1/8" thickness] (volts/mil):		595
Volume Resistivity (Ω cm):	ASTM D257	9.4X10 ¹⁵
VOC [150° C] (lb/gal):	ASTM D6053	0.47

ER7478 is recognized as UL 1446 (File Number OBOR2.E310566) Class H

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

Vacuum/Pressure method: Preheat motor to 250° to 300°F for 3 hours. Place motor in empty vacuum chamber and apply dry vacuum of 1 to 5 millimeters of Hg for 1 hour. Ensure that the part to be impregnated is 110° to 130°F, if part is below 110° F, repeat above steps to ensure part is at least 110°F. If part is above 130° F, allow time for cooling. Do not introduce resin with a part warmer than 130° F.

Introduce the resin into the process tank and allow the resin to cover the part by 3 to 4 inches over the windings. Vacuum the part with 1 to 5 millimeters of Hg for 30 minutes. Pressurize the process tank to a pressure between 90 psi to 100 psi and keep motor under pressure for 1 hour. Longer pressure cycles may be required based on length and/or construction of the of coil slot section. Release the pressure from the process tank completely.

Evacuate the storage tank and transfer resin back to storage. After all the resin has been transferred, lift the motor and allow excess resin to drip from the part. Add motor to a preheated 310° F oven and bake motor for 4 to 6 hours based on motor size.

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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