EPOXY ELECTRICAL MAINTENANCE KIT (324A)

ELECTRICAL MAINTENANCE KIT

DESCRIPTION

EPIREZ® Epoxy Electrical Maintenance Kit is a versatile epoxy based electrical maintenance system. It is supplied as a repair kit containing Hardener, Compound, plastic measuring cups, mixing paddles and application guide.

EPIREZ® Epoxy Electrical Maintenance Kit was previously named EPIREZ® 3242A

INTENDED USE

- Encapsulating and protecting electronic components
- Environmental protection of electric motor coils and windings
- Slicing communication, control and power transmission cables

PRODUCT FEATURES

- Ease of use (no guess work, user friendly)
- Fast turn-around (no baking needed)
- Safety and Convenience (solvent-free)
- Excellent electrical properties

ESTIMATING DATA

2 kg **EPIREZ® Epoxy Casting Compound** = 1 L

TYPICAL PHYSICAL PROPERTIES

Shelf Life	2 years
Mixing Proportions by Volume	3 Hardener to 4 Compound
Appearance when mixed	Clear liquid
Solids Content	100%
Work Time	30 minutes at 25˚C
Typical Cure Time	24 hours at 25˚C
Maximum Casting Thickness	20 mm
Tensile Strength (Ultimate)	63 MPa
Impact Strength (IZOD)	0.7 Joule
Bond Strength	17 MPa
Maximum Operating Temperature	150˚C
Volume Resistivity @ 25˚C	10^{16} ohm.cm
Dielectric Strength	315 kV/cm

SURFACE PREPARATION

Ensure surfaces are prepared for adhesion or release as desired.

EPIREZ® Epoxy Electrical Maintenance Kit possesses excellent adhesion to most clean, dry surfaces.

Moulds should be coated with **ROCOL® Dry-PTFE Spray** or similar Non-Transferring Release Agent to enable release.

MIXING INSTRUCTIONS

Proper homogenous mixing of resin and hardener at the correct ratio is essential for the curing and development of stated properties.

Precondition product to between 18 to 25°C before use

Using a measuring cup supplied, select the level which will give volume required. The mix ratio is 3 parts Hardener to 4 Parts Compound i.e. For 140ml mix , pour the Hardener up to the 60 ml mark on the volume level then add Compound up to the 140ml mark. Alternatively, for 70ml, Hardener level is 30ml and Compound added up to 70ml level. Mix thoroughly, scrape the sides and the bottom of the measuring cup and thoroughly mix again.

Note: For accurate mixing, utilise two measuring cups and keep one for the Hardener, the other for the Compound i.e. for 140ml mix, pour the Hardener up to the 60 ml mark on the volume level in one cup and in the other cup pour Compound up to the 80ml mark. Pour into another cup for mixing.

APPLICATION INSTRUCTIONS

Electric Motor Impregnation

Motor Winding and Preparation

The motor should be wound in the conventional manner and slot space should be utilised to eliminate major voids. Clean all windings free from processing oils.

Resistance Heating

The stator windings should be heated to between 75ºC and 130ºC. This is obtained by applying approximately half the rated voltage. Connect the insulated power leads to the motor leads. If a stator holder is not used, block the stator on its frame, not on its coil. Position the stator, connector end down. Voltage control will be necessary to maintain the temperature within limits. Series resistance or switching is usually satisfactory. Half the rated voltage will usually maintain even temperature.

Temperature Control

A suitable dial thermometer or thermo-couple indicator should be inserted between the windings to provide accurate indication of winding temperature. Do not allow the temperature to rise above 140ºC.

Application to Coil Head

The mixed epoxy can be applied once the temperature indicator reaches 50ºC. The impregnant should be poured slowly on the coil head. The viscosity will drop on contact with the heated winding, this is useful as it aids the flow over both sides of the coil head and into the slots. The epoxy should be poured evenly and completely over the coil head circumference and should cease when it flows out at the connector end.

Application to Connector End

Invert the stator and repeat the procedure with the connector end topside. The epoxy will soon gel on the downside coil head. Use a paint brush to transfer any excess on the bore to anchor wedges to the core. Similarly, brushing onto the connections will fill and seal sleeving.

Finishing

Wipe the bore clean with a dry cloth. Remove any spills on the frame. The process temperature should be maintained until the epoxy on the coil is well gelled (usually 3 to 5 minutes).

Remove the thermometer and power leads, cover the stator to retain heat in the bore and affect cure of phase extensions, connections and top sticks. When the epoxy is completely hardened the unit is ready for assembly.

Splicing Cables

EPIREZ® Epoxy Electrical Maintenance Kit provides a dependable moisture seal for splicing or blocking plastic insulated cables. Prepare mould using plastic tube, foil or tape. Seal around the cable. Mix EPIREZ® Epoxy Electrical Maintenance Kit and pour into mould. Allow to harden, which results in an excellent, dependable moisture seal.

CLEAN UP

Tools and equipment may be cleaned before hardening commences by washing in **EPIREZ® Clean Up Solvent**. Do not use for cleaning hands or mixing with product.

PRECAUTIONS

Epirez® Electrical Maintenance Epoxy should not be applied at temperatures below 10˚C

STORAGE

Store in dry conditions between 10°C and 30°C, away from sources of heat and naked flames. Protect from frost. When stored in original sealed containers, the minimum shelf life is two years.

WARRANTY

EPIREZ® will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

DISCLAIMER

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Polymers & Fluids and EPIREZ® makes no representations or warranties of any kind concerning this data.

ORDER INFORMATION

Item No.	**Package Size**
E903247	2kg kit

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For Health & Safety information, refer to Safety Data Sheet available from ITW Polymers & Fluids upon request or available on our website.