EPIREZ

TECHNICAL DATA

Epoxy Electrical Maintenance Kit

Epirez 324 A

Description

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.

Areas of Application

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

Features

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

General 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 25ºC
Typical Cure Time	:	24 Hours at 25ºC
Maximum Casting Thickness	:	20 mm
Tensile Strength, (Ultimate)	:	63 MPa
Impact Strength (IZOD)	:	0.7 Joule
Bond Strength	:	17 MPa
Maximum Operating Temperature	:	150ºC
Volume Resistivity, 25ºC	:	10^{16} ohm.cm
Dielectric Strength	:	315 kV/cm

Last Modified November 2002

Estimating data

2 kg Epoxy Electrical Maintenance kit = 1.8 Ltr

General Mixing Instructions

Using a measuring cup supplied, select the column which will give volume required. Pour the Hardener up to the letter "H" mark in the column selected then add Compound to the letter "C" mark of the same column. Mix thoroughly, scrape the sides and the bottom of the measuring cup and thoroughly mix again.

Application Directions

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 **Electrical Maintenance 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 **Electrical Maintenance 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 **Electrical Maintenance 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 **Electrical Maintenance 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 effect cure of phase extensions, connections and top sticks. When the **Electrical Maintenance Epoxy** is completely hardened the unit is ready for assembly.

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Splicing Cables

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 **Electrical Maintenance Epoxy** and pour into mould. Allow to harden, which results in an excellent, dependable moisture seal.

Cleaning

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

Limitations

Electrical Maintenance Epoxy should not be applied at temperatures below 10^0C

Storage and shelf life

Store in dry conditions between 10^0C and 30^0C, away from sources of heat and naked flames. Protect from frost. When stored in original sealed containers the minimum shelf life is 2 years.

Packaging

Epoxy Electrical Maintenance Kit is available in a 2 kg pack. Each pack contains Hardener and Compound in correct proportions for use.

Ordering Information

2 kg kit	#903247

Safety Precautions

Avoid contact with skin and avoid breathing vapour. Wear gloves and goggles when mixing and using. Keep away from children. Provide adequate ventilation if applied in confined spaces. If poisoning occurs call Doctor or Poisons Information Centre. If swallowed **DO NOT** induce vomiting. Give plenty of water or milk. If skin contact occurs remove contaminated clothing and wash affected areas thoroughly with soap and water.

TDG Code: Hardener - UN 1760 Compound - Not Classified

Note

The figures quoted for work time, cure time and casting thickness are not definitive. They are dependent on job site conditions and will vary accordingly. In all cases we endeavour to provide typical figures for use as a guide.

Health & Safety Information

The product is hazardous. A Material Safety Data Sheet is available from the ITW Polymers & Fluids Technical Department upon request or available on our website www.epirez.com.au .

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