



TECHNICAL DATA

Epoxy Electrical Maintenance Kit

Epirez[®] 324 A

Description

Epoxy Electrical Maintenance Kit (324A) 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 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

Estimating data

2 kg Epoxy Electrical Maintenance kit (324A) = 1.8 Ltr

General Mixing Instructions

The information contained in this Technical Bulletin is as up to date and correct as possible as at the time of issue. The data provided should be used as a guide only as the performance of the product will vary depending on differing operating conditions and application methods.

The sale of any product described in this Technical Bulletin will be in accordance with ITW Polymers & Fluids Conditions Of Sale, a copy of which is available on request. To the extent permitted by law, ITW Polymers & Fluids excludes all other warranties in relation to this product.

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 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 75°C and 130°C. 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 140°C.**

Application to Coil Head

The mixed **Electrical Maintenance Epoxy (324A)** can be applied once the temperature indicator reaches 50°C. 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 (324A)** 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 (324A)** 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 (324A)** 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 **Electrical Maintenance Epoxy (324A)** is completely hardened the unit is ready for assembly.

Splicing Cables

AUSTRALIA

ITW Polymers & Fluids
100 Hassall Street
Wetherill Park NSW 2164
Phone (02) 9757 8800 Fax (02) 9757 3855

NEW ZEALAND

ITW Polymers & Fluids
Unit 2 / 38 Trugood Drive
East Tamaki 2013, Auckland
Phone (09) 272 1945 Fax (09) 273 6489

Epoxy Electrical Maintenance Kit (324A) 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 (324A)** 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 (324A) should not be applied at temperatures below 10°C

Storage and shelf life

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 2 years.

Packaging

Epoxy Electrical Maintenance Kit (324A) is available in a 2 kg pack. A pack contains the Hardener and Compound in correct proportions for use.

Ordering Information

2 kg kit #E903247

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 .

AUSTRALIA

ITW Polymers & Fluids
100 Hassall Street
Wetherill Park NSW 2164
Phone (02) 9757 8800 Fax (02) 9757 3855

NEW ZEALAND

ITW Polymers & Fluids
Unit 2 / 38 Trugood Drive
East Tamaki 2013, Auckland
Phone (09) 272 1945 Fax (09) 273 6489