



EPIREZ

# TECHNICAL DATA

## Epoxy Casting Compound

### *Epirez 8837*

#### Description

**Epoxy Casting Compound** is a proven epoxy based encapsulating and casting system suitable for use in the electrical, casting and tooling industries. This product exhibits excellent electrical properties and has been chosen for demanding electrical applications for more than 20 years.

**Epoxy Casting Compound** offers high impact resistance and dimensional stability and can be cast in thickness up to 15 cm in single pours. This has made the product ideal for encapsulation and backing of large items.

#### Areas of application

- Proven usage
- Power cable jointing and terminating
- Backing of reinforced tools and jigs
- Encapsulation of power transformers
- Communications cable joining
- Preparation of prototype jigs and moulds

#### Features

- Low mixed viscosity
- Low exotherm
- Superior electrical properties
- Room temperature hardening
- Excellent impact resistance
- Excellent mechanical properties

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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.

## General properties

Shelf Life	: 2 Years
Appearance of Hardener	: Amber Liquid
Appearance of Compound	: Grey Liquid
Mixing Proportions by Weight	: 1 Hardener to 5 Compound
Mixing Proportions by Volume	: 1 Hardener to 3 Compound
Colour when Mixed	: Grey
Solids Content	: 100%
Work Time of 1 Kilogram Mix	: 2 Hours at 25°C
Typical Cure Time	: 24 Hours at 25°C
Maximum Casting Thickness	: 15 cm
Compressive Strength, (Ultimate)	: 93 MPa
Compressive Yield Strength	: 83 MPa
Tensile Strength, (Ultimate)	: 28 MPa
Compressive Modulus	: 1.2 GPa
Thermal Conductivity	: 0.66 W/(m.K)
Thermal Expansion (Linear)	: $1 \times 10^{-5} \text{ K}^{-1}$
Barcol Hardness	: 25
Heat Deflection Temperature	: 50°C
Volume Resistivity	: $10^{14}$ ohm.cm at 25°C
Dielectric Constant	: 3.28
Power Factor	: 0.015

## Estimating data

6 kg Epoxy Casting Compound = 3.7 litres

## Application Directions

### Surface preparation

Ensure surfaces are prepared for adhesion or release as desired. **Epoxy Casting Compound** possesses excellent adhesion to most clean, dry surfaces. Moulds should be coated with a suitable releaser. Non-Transferring Release Agent to enable release.

Estimate material needs for casting at up to 15 cm per pour.

Surface preparation guidelines cannot cover all site or field contingencies and it is always recommended that an on-the-spot adhesion test be performed as part of the Standard Quality Assurance audit for the project.

### Mixing

Premix Compound to ensure any settled material is recombined. Add Hardener to the Compound in the correct proportions for use. Mix thoroughly using a stirrer fitted in a low speed (400 rpm) mechanical mixer. Ensure all of the material on the sides of the container and on the stirrer are incorporated. Avoid air entrapment.

### Pouring and Curing

Allow freshly mixed **Epoxy Casting Compound** to stand for 2-3 minutes for air to escape and then pour into mould in a slow stream, taking care not to entrap air. Fill to top or to a maximum depth of 15 cm.

Allow to harden overnight and complete additional pours in 15 cm sections as necessary.

Leave for 24 hours after final pour and then remove from mould.

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## Cleaning

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

## Limitations

**Epoxy Casting Compound** 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 Casting Compound** is available in 6 kilogram packs. Each pack contains Hardener and Compound in the correct proportions for use.

## Ordering Information:

6 kg #988372

## 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 any contaminated clothing and wash affected areas thoroughly with soap and water.

**TDG Code:** 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](http://www.epirez.com.au).

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