

Technical Data Sheet

Epofix Cold-Setting Embedding Resin

Catalog #1232

Description

Epofix is a cold-setting resin based on two fluid epoxy components. Epofix is specially developed for mounting of irregularly shaped specimens and for impregnation of porous specimens, where low shrinkage and good mechanical properties in the cured state are required. Owing to its low viscosity, Epofix will penetrate into all porosities and cracks of the specimens. After curing, Epofix can be cut, ground, polished, grinded, etc.

Kit consists of

- 1 kg resin
- 0.12 kg hardener
- 15 disposable paper cups and wooden spatulas
- 1 measuring syringe 20 ml and 1 syringe 5 ml

Warning! Please read the following carefully

Epofix resin contains Bisphenol-A-Diglycidylether

- Irritating to eye and skin
- May cause sensitization by skin contact
- After contact with skin, wash immediately with plenty of water
- Wear suitable gloves and eye/face protection

Epofix hardener contains Triethylenetetramine

- Causes burns
- Harmful in contact with skin
- May cause sensitization by skin contact
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- Wear suitable protective clothing, gloves and eye/face protection

Use

Included in the Epofix kit are syringes for measuring out suitably small quantities of resin (20 ml syringe) and hardener (5 ml syringe)

Apportioning

1. Cut off 4-6 mm from the tip of the cap (resin).
2. Press the point of the syringe hard through the hole.
3. Invert the bottle without removing the syringe.
4. Draw a lightly greater amount than desired into the syringe by pulling the piston.
5. Press air and excessive fluid back into the bottle.
6. Turn the bottle upright and carefully remove the syringe. The syringe now contains the correct amount of resin or hardener. When the syringe is used as a stopper, it can be used many times without being cleaned.

Mounting

1. Degrease the specimen before it is placed in the mold.
2. Mix 15 parts by volume of resin with 2 parts by volume of hardener (25 parts by weight of resin with 3 parts by weight of hardener) in a paper cup and stir carefully for at least 2 minutes.
3. Pour the mixture carefully over the specimen in the mould, so that no air bubbles are caught, and let the mixture harden.

An excessive quantity of hardener will promote the reaction. This reduces the processing time, but involves the risk that the mold may melt or that the specimen will become overheated.

Where considerable amounts of Epofix are used, the polymerization temperature may rise to such a level that it is necessary to eliminate the heat generated.

For mounting of irregularly shaped specimens and, especially, for impregnation purposes heating of the Epofix mixture to 50°C is recommended before pouring it over the specimen. This gives the mixture a lower viscosity, thus ensuring a more through penetration into the pores of the specimens.

For porosity measurements, or to obtain a contrast, Epofix can be colored by adding Epoxy-Dye to the resin before mixing.

Technical Data

Components	Resin/Hardener
Mixing ratio vol/vol	15/2
Mixing ratio weight/weight	25/3
Pot life	30 min*
Curing time	8 hours*
Max. temp. while curing	75°C
Linear shrinkage	insignificant
Hardness	75 shore D
Vapor pressure	40 mmHg (2°C)
Viscosity	550cP (20°C)/150cP (50°C)
Refractive Index	.n D = 1.571
Epofix resin, soluble in	alcohol, acetone
Epofix hardener, soluble in	alcohol, acetone, water
Resistant to	acids, bases, acetone, alcohol
Increase of hardness	Hardfiller (option)
Moulds	silicone, phenolic, polyethylene

* for 30g @ 20°C