INSTRUCTIONS FOR USE - ENGLISH

665 RESIN

COLD MOUNTING

Bi-component methyl methacrylate resin for sample recovery

Areas of use

Resin 665 has been specially developed for metallographic sample embedding.

Material

Methyl methacrylate based autopolymerising fast hardening resin. Composed of liquid and powder.

Properties

Resin 665 is a fast hardening embedding resin which is unique in that it dissolves in acetone or softens under heat. This capacity enables the recovery of samples after polishing.

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COMPANY CERTIFIED ISO 9001

Preparation

Surfaces in contact with Resin 665 must be clean and free of grease before carrying out embedding. For degreasing, use ethanol or isopropyl alcohol. The use of polyethylene or silicone moulds is recommended for embedding.

Depending on the nature of the sample, pour a thin layer of resin into the mould, position the sample then fill the mould with resin to the desired level. For simple geometric shapes, position samples directly in the embedding mould and cover them with resin 665. Pour the liquid slowly in a thin stream to allow the release of any air bubbles in the mixture.

Mix

- Wear gloves
- 2 parts powder to 1 part liquid.
- hardening time: 10 to 15 minutes at 20°C
- maximum polymerisation temperature 112°C

It is essential that the mixture is homogeneous in order to preserve the optimal properties of the resin.

Cardboard goblets and wooden spatulas must be used to mix resin 665.

First pour the liquid, then add half of the powder and mix carefully. Sprinkle in the rest of the powder a little at a time. Mix for at least 40 seconds, thoroughly scraping the bottom and sides of the goblet with a wooden spatula.

Mix carefully with a wooden spatula until all the powder is fully moistened and no liquid remains on the surface. Avoid beating the mix to prevent air bubbles from forming. Before pouring, tap the goblet on the table to release any air bubbles which may have formed.

Hardening

The heat released during cooling may cause pores to form. To avoid this do not add more than 30 g of the mixture at once (e.g. 20 g of powder and 10 g of liquid). Larger samples must be prepared in several layers. But a new layer must not be added before the previous layer is hardened.

Hardening begins when the powder and liquid are mixed. It can be accelerated by heating or slowed down, but not stopped, by cooling.

To obtain a bubble-free polymerisation, we recommend using the M.M.808 autoclave.

When hardening is complete, it is possible to polish the sample mechanically via the usual methods.

CODE : EMPLR665

Sample recovery

Two sample recovery methods are available:

1. Using acetone:

The embedded sample can be placed in a closed receptacle containing acetone at room temperature (do not heat acetone). Make sure the sample is fully immersed in the liquid. About 150ml of acetone is recommended to dissolve a 30mm embedding. Depending on the size the embedding, dissolving can take from several hours up to three days.

2. Using a heat source:

This method can be used for samples which are heat resistant up to 150°C. The embedded pieces are placed in an oven which has been preheated to 150°C. In a few hours, depending on the size of the sample, the resin will soften, which enables the sample to be mechanically ejected.

Safety advice

Consult the safety information file, available for downloading at www.lamplan.com, before using this product.

Storage

Store in the original hermetically sealed packaging, away from light and heat (maximum 25°C).

Expiry

See expiry date on product packaging.

Presentation

Powder kit (1 kg) + catalyst (500 ml) – CODE 06 00665 00

Catalyst (500 ml) – CODE 06 02665 00

Powder (1 kg) – CODE 06 01665 00

M.M.808: cold embedding pressure polymerisation machine.

CODE 08 00808 20