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TECHNICAL DATA SHEET 354

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Ultra-Low Viscosity Embedding Media

DESCRIPTION

This medium, with a viscosity of only 20 cps at 25° C, is similar to Spurr Resin although it incorporates a lower viscosity hardener, N-Octenyl Succinic Anhydride.

Useful for the rapid embedding of materials which are difficult to infiltrate even with Spurr.¹ Excellent ultrastructural preservation is demonstrated, especially in samples with highly vacuolated, thick walled cells.² Ultra low viscosity resin also exhibits good sectioning qualities, beam stability and staining properties.

PROCEDURE

Combine components gravimetrically into a dry beaker and mix with a magnetic stirrer for 1-2 minutes at low speed. Shaking will cause bubbles in the resin. To minimize moisture contamination, all vessels and utensils that come in contact with the medium should be oven-dried.

<u>Component</u>	<u>Standard Mix</u>	<u>Hard Mix</u>
ERL-4221	0.5 part	0.5 part
N-Octenyl Succinic Anhydride, Hardener	1.0 part	1.0 part
1,4-Butanediol Diglycidyl Ether, Modifier	0.075 part	0.05 part
DMAE (Dimethylaminoethanol), Catalyst	1.0% volume	1.0% volume

An increase of 1,4-butanediol diglycidyl ether will yield softer blocks, while a decrease of the same will produce harder blocks.

This medium is miscible with ethanol, methanol or acetone so the use of propylene oxide as a transitional solvent is unnecessary.

1. After a graded series of alcohol changes (*approx. 5 minutes each*) and several 10-minute changes of 100% alcohol, the sample is infiltrated for 5 to 10 minutes in a 1:1 resin/100% alcohol mix.
2. Final infiltration consists of 100% embedding media for 10-15 minutes.
3. Polymerization is accomplished at 70° C for 8-12 hours. BEEM[®] capsules or flat molds can be used for embedding.

Caution: Components cause irritation. They may also be skin sensitizers. Avoid contact with eyes, skin and clothing. Wear impervious gloves and goggles. Use only with adequate ventilation. Wash thoroughly after handling. See Material Safety Data Sheets for further information.

ORDERING INFORMATION

<u>Cat. #</u>	<u>Description</u>	<u>Size</u>
17706	Ultra-Low Viscosity Embedding Kit	1 kit

REFERENCES

1. Mascorro, J.A., et al., 34th Ann. Proc. E.M.S.A., 346 (1976).
2. Oliveira, L., et al., J. Microscopy, 132, 195 (1983).

BEEM[®] is a registered trademark of BEEM, Inc.

TO ORDER

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