

Technical Data Sheet

EmBed 812- DER 736

#14130

Introduction

Because DER 736 has a lower viscosity (30-60cP at 25°C) than DDSA (290cP at 25°C), the mixture is less viscous and penetrates the tissue more rapidly.

Recommended Procedure

Fixation

Tissues can be fixed in a wide range of fixatives. One of the most commonly used fixatives is an aldehyde (i.e.: glutaraldehyde) followed by osmium tetroxide.

Dehydration

There are many different dehydration schedules that can be followed. A typical one is as follows:

- 70% Ethanol for 10 minutes
 - 100% Ethanol for 10 minutes
 - 100% Ethanol for 15 minutes
 - 100% Propylene Oxide for 15 minutes
 - 100% Propylene Oxide for 15 minutes
- Note:** Longer times may be required for some samples.

Mixing Instructions

DER 736	8 ml
EMbed 812	2 ml
NMA	8.9 ml
DMP 30	0.28 ml

(For Larger Batches Increase Each Component Proportionally)

Slight variations of the accelerator (DMP-30) will drastically affect the color and brittleness of the block.

Prior to measuring and mixing the resin and the anhydride should be warmed (60°C) to reduce their viscosity. Thorough mixing is imperative to be able to achieve uniform blocks. The final block, can be made harder by adjusting the ratio of DER 736 and EMbed 812: A ratio of 4:1 is recommended.

Although the mixture can be stored for up to 6 months at 4°C it is highly recommended that freshly prepared embedding medium always be used. If you choose to store the mixture you should warm it thoroughly prior to adding the accelerator.

Infiltration

It is recommended that for all of the infiltration steps a specimen rotator be used.

1. Drain the tissue of most of the propylene oxide, leaving a little so the tissue does not dry out.
2. Replace the solvent with a 1:1 solution of propylene oxide:embedding medium and allow it to stand for at least 1 hour at room temperature.
3. Remove the mixture, replace it with 100% embedding medium and leave for 6-12 hours at room temperature.

Embedding

This may be done in EMS embedding capsules (EMS Catalog #70020) or a flat embedding mold (EMS Catalog #70900).

Transfer each sample to a dry capsule or mold and fill the mold with embedding medium. Cure the medium in an oven at 60°C overnight.

Blocks can be trimmed and sectioned after the blocks return to room temperature.

References

Kushida, H. (1967), J. Electron Microscopy 16, 278.