Technical Data Sheet

Araldite 6005 Kit

#13920

Introduction

Heating the resin slightly will reduce its viscosity. Tissues to be embedded in Araldite 6005 can be dehydrated with most commonly used organic solvents. However the application of a transitional solvent, such as propylene oxide, is advisable because epoxy resins are more soluble in propylene oxide.

Due to its slow penetration, Araldite 6005 should only be used when the samples being embedded are very hard and penetration into the specimen is not needed.

Recommended Procedure

Fixation:

Tissues can be fixed in a wide range of fixatives. One of the more 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:

Araldite 6005	20 ml
DDSA	27 ml
BDMA	1.4 ml

(FOR LARGER BATCHES INCREASE EACH COMPONENT PROPORTIONALLY)

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.

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.

- Drain the tissue of most of the propylene oxide, leaving a little so the tissue does not dry out.
- 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.
- 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 for at least 16 hours. Better sectioning properties of certain samples may be achieved if a time of 24-48 hours in the oven is used.

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