

Ladd Research
3 Ewing Place
Essex Junction, VT 05452
Tel: (802) 658-4961
Email: sales@laddresearch.com
Web: www.laddresearch.com



Ladd Ultra-Low Viscosity Embedding Kit
Catalog Number: 21220

The Ladd ultra-low viscosity embedding medium incorporates ERL 4221 as a replacement for the discontinued VCD (ERL 4206). The result is a slightly higher viscosity than the original.

The complete medium is quickly prepared by measuring each component by weight into any convenient container. Due to the relatively low viscosity of the components, mixing is easily managed by shaking, stirring or swirling. Bubbles entrapped by even vigorous shaking will quickly dissipate in a very few minutes.

Infiltration can follow dehydration with ethanol immediately without the use of a transitional fluid because the epoxy and ethanol are completely soluble in one another. The best infiltration can be obtained by diluting the ethanol with the complete medium until the specimen is in the complete medium with no ethanol for 1-4 hours. Favorable results have been obtained by leaving the specimen in a 1:1 mixture of ethanol:complete resin for one hour followed by 1-2 hours in complete resin. Curing can be performed in 8 hours at 70°C, although cures of longer duration do not seem to adversely affect block quality.

Hardness of the blocks can be adjusted by changing the quantity of DER-736 in the mixture. A relative increase of this modifier will produce softer blocks while a relative decrease will produce harder blocks. The experimenter should feel free to vary proportions of any component to improve block quality. A slight excess of DMAE may be tolerated but darker castings are likely to result. Every attempt should be made to minimize exposure of the components to atmospheric conditions.

Standard Mixture

ERL 4221.....5.0g
OSA.....10.5g
DER-736.....0.75g
DMAE.....0.2g

Warning!! Work with any of these components or with the mixture should be conducted under an exhaust hood. Areas of the skin which come into contact with the components or the mixture should be carefully washed with soap and water. Please consult the MSDS for additional safety information.