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### INSTRUCTIONS for MERCOX II

Catalog Numbers 21245, 21245S, 21245-Air, 21246, 21246S, 21247-Air, 21247, 21247S, 21247-Air

**Please Note!!** This new Mercox has been formulated with an extremely low viscosity and is to be used as is. We strongly advise that this product NOT be diluted with methyl methacrylate to lower the viscosity.

Mercox II is a modified acrylic casting material consisting of two components, a resin and a catalyst. Characteristics of the system include excellent permeability and infiltration properties, chemical resistance to maceration solvents, low viscosity, minimal shrinkage and the ability to harden at room temperature.

The Mercox II system is an excellent choice for producing exact anatomical corrosion specimens by injection into the venous and arterial systems and subsequent maceration. Mercox II yields a high degree of replicating accuracy with the ability to give clean and completely filled specimens.

#### GENERAL PROPERTIES

	Designation	Appearance	Viscosity (25°C)
<b>Resin</b>	Mercox	Clear, red or blue liquid	10-15 centipoise
<b>Catalyst</b>	Benzoyl Peroxide (40%)	White pourable paste	-----

**Polymerization** of the complete Mercox II (resin with catalyst) takes place in a relatively short time. Care should be taken to complete all preparations involving the application of Mercox II prior to the actual mixing of the components. A guide for estimating approximate working time (pot life) following the mixing of catalyst with the resin is as follows:

Components (grams)			
Resin	Catalyst	Pot Life (minutes)	Cure Time (minutes)
20	0.4-0.5	4-5	7-10
20	1.5-2.0	2-3	5-7

Stir the resin and catalyst thoroughly to ensure complete mixing but keep in mind the relatively short pot life

If a larger quantity of resin is needed, it may be prudent to decrease the ratio of catalyst due to the extended time necessary to cast larger amounts and the concurrent risk of premature curing. At any rate, feel free to experiment with adjustments to the catalyst ratio to speed up or delay the rate of polymerization.

Curing is by an exothermic reaction so it may be preferable to minimize the quantity to be applied at any one time. Twenty milliliters seem to be a suitable quantity.

**Important Notice to users who add dyes MDYE-B and MDYE-R to Clear Mercox**

The dyes for Mercox II are very potent. It is advised that you do not exceed 0.05% (w/v) dye (i.e., 10mg dye per 20 ml Mercox II resin).

**ADDITIONAL NOTE!!** We have begun including 40% Benzoyl Peroxide in our Mercox kits. This catalyst is significantly easier than the 55% catalyst to mix into solution. Some of our customers were having difficulty mixing the 55% Benzoyl Peroxide into solution in a timely manner. You should NOT have to increase the usual amount of catalyst in your protocol to compensate for the different concentration. (i.e. If you normally use 0.5g catalyst per 20ml resin you may continue to use 0.5g catalyst.)

**Handling Precautions**

Avoid all direct skin contact.

Avoid breathing vapors.

If skin contact occurs, wipe off liquid material with disposable towels and immediately wash thoroughly with soap and water.

Care should be taken to avoid contamination of the Mercox II, particularly with reducing agents or amines, as the catalyst contains an organic peroxide.

Store both the resin and the catalyst in a cool dark cabinet to avoid decomposition of the peroxide catalyst and spontaneous polymerization of the resin.