

TECHNICAL BULLETIN

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POLY LATEX 60

NATURAL LATEX MOLDMAKING COMPOUND FOR BRUSH-ON MOLDS

DESCRIPTION: Poly Latex 60 is a one part brush-on liquid which, after multiple coats, drying between each coat, is built up to 1/16th inch to 1/8th inch thick to form a tough rubber blanket mold, often used for casting plaster, concrete and limited casting with some resins.

While Poly Latex 60 has better tear strength than synthetic rubbers and is sometimes preferred for molds that are peeled off the casting like a sock, two part synthetic rubbers like Polygel 40 and 50 can be brushed on to final thickness in an afternoon and should also be considered for molds wherever latex may be used.

FEATURES:

One part, no mixing or weighing needed. Tougher than any other mold rubber.

MODEL PREPARATION: Wood, oil-based plasticenes, stone and glazed ceramics generally do not require any sealer. Plaster, unglazed ceramics, copper containing metals, water clay and cement should be sealed with shellac. Other metals and materials can be tested by applying a small patch of a coat or two of latex. If the latex turns dark or sticks after drying, a sealer should be applied.

Models with sharp edges or points may yield a better mold if the points are dulled slightly by sanding prior to sealing.

The model should be firmly mounted on a suitable base board like a piece of plywood or a sink cutout available from kitchen counter shops. A hole should be drilled through the base board to allow air to escape from within the model to avoid air pressure developing inside the model and bulging your mold.

MAKING THE MOLD: Temperature and humidity will greatly affect the drying time of each coat. Warm, dry air is best for fastest drying. The model should be free of oil, grease and dirt.

Prewet your brush with soapy water to aid cleanup. Squeeze out the excess and apply a thin coat of latex to the model. Avoid puddling. A gentle stream of air may help to blow latex into the finest detail and break any bubbles. In a warm room with slight air movement, each coat should dry in four to sixteen hours. When it is dry, the latex will lose its milky appearance, becoming slightly transparent and amber in color. The next coat should be applied as soon as the first coat is dry. From six to thirty coats may be needed depending on the thickness of the mold desired.

Large flat molds should be coated in a checkerboard pattern, alternating squares between coats as there is some shrinkage on drying and the patchwork method reduces stress and warping which could develop.

The latex may be thickened with ground cork, sawdust or Cab-O-Sil in order to fill undercuts. Such thickeners must be completely wet out with latex and applied to the outside surface of the mold. The thickened latex must be allowed to dry completely as wet spots trapped in the latex can cause delamination of the mold.

Latex molds can be reinforced by imbedding muslin, burlap or polyester fabric in the rubber. The fabric should be laid into a wet coat of latex and then saturated with latex throughout. Allow the saturated fabric to dry completely before applying more latex.

When the mold is removed from the model it should be thoroughly dry and heat cured. Heating in a warm oven at 110°F to 150°F for 6-8 hours should assure complete curing. If heat curing is not possible, allowing the mold to stand in a warm area for up to a week will help to strengthen the rubber.

USING THE MOLD: Avoid exposing the mold to oils, grease or solvents. Molds may be washed with soap and water. For plaster or cement casting the mold should be wet before pouring with a 1% solution of detergent, like Ivory Liquid in water, to aid releasing air bubbles from the mold surface. No other release is usually necessary. For resin casting, a release is necessary like Pol-Ease 2300 or PVA. Most resins shorten the life of a latex mold rapidly and Polygel or Poly-Sil Silicone molds may last longer.

Molds should be stored in the shell in a cool, dry area, out of direct sunlight.