SILPAK RL-461

Brush-On, Molding Latex

RL 461 is a one-part, brush–on, molding latex that is applied in layers to build a highly tough, tear resistant and durable mold rubber. Molds are best used to cast plaster and concrete. It also works well for creating texture pads for decorating concrete or clay models. Latex needs to semi dry between coats as multi-layer molds or parts are being created.

Features

- Medium solids
- Brush on latex
- Highly tough, tear resistant and durable

Applications

Use to create molds or texture pads, including:

- Texture pads for concrete
- Clay models
- Concrete molds
- Plaster molds

Physical and Handling Properties

Property	Value
Color	Natural
Density, lb/gal	8.15 – 8.35
Latex Solids, %	57-62
pH	9.8 – 10
Tensile Strength, psi	3,400
Tear Strength, pli	280
Elongation, %	900
Coverage, per ¾ lb	1 ft^2 x 1/16” thick

Values listed above are typical and not intended for use in specifications.

Proper Use and Safety

Read all instructions and safety data sheets prior to use. Consult safety data sheets for all recommended safety precautions.

Model Preparation

The model’s surface should be clean and free of oil and dirt. Oil clay, wood, stone, and glazed ceramics normally do not need to be sealed. Plaster, concrete, water-based clay, copper containing items should be sealed with shellac or compatible sealer. For all other surfaces, run a small test to ensure compatibility, if latex sticks or turns dark, apply sealer. Next, secure model to a base board, plywood or something similar.

Mold Making Instructions

Fasten the part to be molded to a firm base to avoid handling piece during brushing. No release is necessary in most cases unless part is highly porous, then apply a sealer. When brushing on latex, care should be taken to brush out all bubbles to assure a smooth, detailed first coat so void-free positives can be made. Brush from the top of model to bottom then continue out from base, about 1.5-2," to create a supporting flange. Continue to build-up flange with each successive layer of latex. When dry, the flange provides an aid with handling the mold during the casting process.

After the first coat has become dry to the touch, subsequent coats may be added allowing each coat to dry before applying next coat. Depending on environmental conditions the drying time will change from hours to portion of a day, 4-16 hours. Drying time depends on temperature and humidity and can be improved using heat and moving air over the surface, with 1-2 coats per day. When dry, latex will change color from creamy white to a light tan. Mold consists of 8-20 coats depending on desired thickness and latex system used. Thickness ranges between 1/8-1/4" thick. Each additional coating should be brushed in alternating directions (top to bottom, right to left, diagonally) with a checkerboard coat in between so a laminated structure is created. Applying this technique reduces the dimensional shrinkage of the finished mold.

For deep undercut areas, use **Silpak RL 400T** (thickening/plugging filler). Add to latex system until desired paste is created, a thick peanut butter like consistency, and apply to outside latex mold. Once area is filled and allowed to dry, usually within the hour, brush a final coat of straight latex to seal up area.

To maximize the strength properties of the mold, allow it to fully cure in a warm area for 1-2 weeks before placing into production. Otherwise, accelerated cure can be achieved if mold is warmed in an oven at 100-150°F. Once mold is fully cured, a mother mold support should be made from fiberglass or plaster to support the latex mold.

Using Mold

Avoid contact with copper containing metals, oils or solvents. When casting with concrete and plaster, using a casting release **Silpak CO-1** is recommended. Wetting the mold's surface prior to casting will assist in eliminating air bubbles from the mold's surface. Clean latex with soap and water. Keep cured latex rubber out of direct sunlight.

Storage & Shelf Life

Store liquid material in cool, dry area out of direct sunlight, in tightly sealed containers, above 60°F. Use within 6 months. Do not allow liquid material to freeze which will damage latex causing irreversible coagulation.