

MAS[®] FastCast[™]

URETHANE CASTING RESIN

An epoxy resin calculator is available on MASEPOXIES.COM to help calculate material volume based on project dimension and geometry.

DANGER: THIS KIT CONTAINS THE FOLLOWING CHEMICALS THAT MAY BE HARMFUL IF MISUSED: MDI, POLYOL. READ CAUTIONS ON INDIVIDUAL CONTAINERS CAREFULLY. KEEP OUT OF REACH OF CHILDREN. Before use, thoroughly read Safety Data Sheets and product labels. Follow all safety precautions and directions. Keep out of reach of children. Do not eat, drink, or smoke when mixing material. Avoid getting material on skin or in eyes. Wear gloves, such as butyl rubber or nitrile rubber. Wash skin thoroughly with soap and water after handling. Wear eye protection, such as chemical safety glasses/goggles. If spilled, collect spillage avoiding release to the environment. Dispose of mixed material and containers according to local, regional, and national regulations.

FASTCAST[®] IS A TWO COMPONENT, 100% SOLIDS, CASTING URETHANE:

Two-component resin that is clear when mixed, but cures opaque white. The product is odorless and sets in 10 minutes at 70°F (21°C). Cast pieces can be de-molded within 10–15 minutes. Cured pieces are hard yet durable, and can be drilled, sanded, carved, tapped, machined, stained and painted. These characteristics make it ideal for fast prototyping and quick duplication of original pieces.

TOOLS REQUIRED:

1. Plastic measure/mixing cups (do not use styrofoam or wax coated cups).
2. Wood stir sticks.
3. Newspaper or plastic drop sheet to protect work surface.

MOLDS:

FastCast[®] releases best from molds made from Silicone Rubber. Resin molds made from polypropylene, polyethylene or natural latex may require a mold release spray or conditioner. If you are not sure, test a spot on the mold, such as the back before using. Due to the strong bonding properties of FastCast[®], only use plastic molds designed for resin casting. Plastic molds used for candy, soap or candles are generally not usable even with a good mold release.

MOLD PREPARATION:

1. **Determining mold capacity:** Occasionally some molds will state the size of the mold cavity. However rubber molds generally do not. To determine the amount of material required, fill mold with rice, then pour the rice into a measuring cup. This will give you a good indication of how much product will be required.
2. **Mold Release:** If necessary, prepare mold with mold release spray or conditioner per package instructions. Allow the mold release to dry completely before using mold.

NOTE: To assist the cure of thin castings below 1/4 inch, pre-warm silicone or rubber mold(s) in a microwave oven just enough to be warm, but not to warm to touch. Any old resin residue must be removed prior to microwaving/heating.

WORK AREA AND SURFACE:

1. For best results, your work area and surface should be between 70°F (21°C) and 75°F (24°C).
2. Work surface should be dry, level and free of dirt or dust.
3. Protect work area with a plastic drop sheet, wax or newspaper.

INSTRUCTIONS:

1. MEASURE:

Carefully measure equal amounts of components "A" and "B" by volume into a straight sided, flat bottom, wax free container (do not use styrofoam). **WARNING: Failure to measure equal amounts of "A" and "B" can result in soft or sticky castings.**



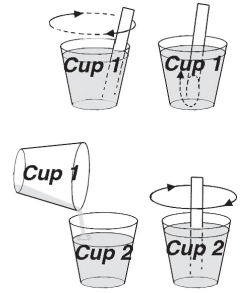
Measure exactly
1 part "A" + 1 part "B"



2. MIXING:

FastCast[™] has a maximum 2 minutes of working time at 70°F (21°C), less time at warmer temperatures. Therefore, immediately upon measuring, mix components A and B together for 30 seconds, scraping sides and bottom of container, then immediately pour this solution into your mold, do not hesitate!

NOTE: As FastCast[®] begins to cure, the mixed solution will heat up and begin to turn a dull white. Once cured, the cast piece will become bright white in color.



3. DE-MOLDING:

Allow 10–15 minutes for your casting to set and cure.

NOTE: Thin castings may take longer to cure due to less heat build up, while thicker castings will take less time. Warmer or cooler room temperatures and humidity can also affect cure time. Allow cast pieces to cool and completely cure before sanding, drilling, shaping, etc.

4. CLEAN UP:

While liquid, the material can be cleaned from tools with alcohol or solvent.

TECHNIQUES:

Painting - For best paint adhesion, remove all mold release agents from your casting if they were used with your mold, generally this can be done with soap and water. Allow pieces to dry, then paint cast pieces with acrylic paints. If paint does not adhere or beads back from surface, wipe surface with solvent before painting.

Coloring FastCast[™] - Components "A" and "B" can be colored or tinted with water-free or alcohol-free Pigments or Transparent Dyes, however the final color will become pastel. This is due to a chemical reaction that causes FastCast[®] to turn white while curing. In most cases its best to paint the cured surface with acrylic paints, however occasionally a base color in the cast piece may be beneficial. Note: Food coloring is water-based, not compatible, and will cause resin to foam.

Adding Fillers - Dry fillers such as crushed ceramic, calcium carbonate, micro balloons, granite, and metal powders can be added, however adding fillers will increase viscosity and lengthen cure time depending on the amount and type. When adding fillers, we highly recommend testing FastCast[®] with the filler first to determine compatibility and cure rate before attempting your final project. Fillers must be dry and free of moisture.

TROUBLE SHOOTING:

Partially Filled Mold - FastCast[®] will bond to itself, therefore you can add more to an incomplete casting. For best results, pour the remaining void as soon as possible.

Tacky Casting - This is generally due to inaccurate measuring or mixing. These tacky castings will unfortunately have to be disposed of.

Soft Casting - Small or thin cast pieces can take longer to cure and harden properly due to the lack of heat while curing. To finish curing, place pieces in a warm environment of 120°F (49°C) for 15–20 minutes, then allow to cool. Once cooled, if pieces are not hard, then most likely the 1-to-1 ratio was incorrect, and these cast pieces will most likely remain soft.

STORAGE (SHELF LIFE):

Store material in its original, sealed containers at temperature between 65°F (18°C) and 75°F (24°C). Shelf life of unopened material is six months under recommended storage conditions. Do not open containers until the material is ready for use to avoid air entrapment. Opened containers, contents should be used as soon as possible, as the remaining product will be affected by moisture and air introduced when opened.

Keep from freezing. If frozen or the product appears to have separated due to freezing, tighten caps and place bottles in a hot tap-water bath inside of a larger container or pail until the solution has reliquified. If necessary, stir or lightly agitate contents to re-blend, avoid mixing in air. Allow the contents to cool to 70°F (21°C) and any bubbles from mixing to dissipate before using.

PROJECT IDEAS:

For the latest in project ideas and techniques, visit our web site: www.masepoxies.com or our blog site at www.resincraftsblog.com



(800) 755-8568

www.masepoxies.com

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Product warranty information is available on www.Polytek.com

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