

MAS[®] EasyCast[®] EPOXY

An epoxy resin calculator is available on MASeoxies.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: EPOXY RESIN, o-CRESYL GLYCIDYL ETHER, NONYL PHENOL, PROPYLIDYNETRIMETHANOL, PROPOXYLATED, REACTIONS PRODUCTS WITH AMMONIA, POLYOXYPROPYLENEDIAMINE, 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE. 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.

WHAT IS EASYCAST[®]?

EasyCast[®] is a reactive clear casting epoxy. It is solvent free and low odor. It can easily be colored using water-free dyes and pigments. It is also compatible with mica powders for producing stunning pearlized effects. EasyCast[®] can be poured up to 3/8 inch thickness and is ideal for casting clear parts using silicone molds or for embedding dry/sealed items. For deeper pours, use MAS Deep Pour for projects 1/2 to 1 inch thickness or MAS Deep Pour X for pours 2 to 3 inch thickness.

TOOLS REQUIRED:

1. Plastic measure / mixing cups (do not use wax coated cups as the wax may break off and contaminate your mix)
2. Wood stir sticks
3. Disposable craft brushes
4. Wax paper or plastic sheet to protect work surface

MOLDS:

Silicone mold making rubber or premade molds are the best way to cast parts. Use of mold release can improve demolding and extend mold life. Due to the extreme bonding characteristics of epoxy, all non-silicone molds must be used in conjunction with a resin mold release. If you are not sure of the composition of your mold, test a spot on the mold, such as the back side. Thin plastic molds used for candy, soap or candle molds are generally not recommended even with a good mold release.

MOLD PREPARATION:

1. **Determining mold capacity:** Occasionally plastic molds state the size of the mold cavity. However rubber (latex, urethane, and silicone) molds generally do not. To determine the amount of material required, fill mold first with water, then carefully pour this water into a measuring cup. CAUTION: Some rubber molds may absorb water. This water can cause a cloudy or milky appearance in your finished piece. Make sure your molds are thoroughly dry before using.
2. Coat all non-silicone molds with mold release prior to casting in order to remove your cast pieces once cured.

WORK AREA AND SURFACE:

1. For best results, your work area and surface should be between 70°F (21°C) and 85°F (29°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:

EasyCast[®] was designed for a maximum pour of up to 3/8 inch. Pouring beyond this depth will result in extreme heat build causing the product to cure too quickly, form bubbles, and potentially shrink or deform.

1. IMPORTANT:

EasyCast[®] performs best at 75°F (24°C). EasyCast[®] bottles should feel slightly warm to the touch, if they feel cool, they must be warmed by placing them in warm tap water (not hot) for 5 to 10 minutes prior to using. If bottles become overheated, allow them to cool before using. Never mix hot resin and hardener together! Mixing EasyCast[®] when cold will result in cloudy casts with microscopic bubbles.

2. MEASURE:

Carefully measure equal amounts of resin and hardener into a straight sided, flat bottom, wax free measuring container. **WARNING: Do not vary the 1 to 1 ratio for any reason! Failure to measure equal amounts of resin and hardener will result in soft or sticky castings. Do not simply pour the contents of both bottles and expect to get properly measured amounts, always measure!**

EXACTLY
1 part Resin.



Then add to that
EXACTLY 1 part
Hardener by
volume (not weight).

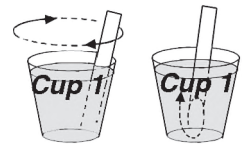


3. DOUBLE MIXING (BEST PRACTICE):

With the resin and hardener measured, use a stir stick and mix together for two full minutes. Mix slowly to avoid incorporating excess bubbles. During mixing, use the stir stick to scrape the sides and bottom of your mixing container. Occasionally scrape the mixture from your stir stick back into the solution. After two full minutes of mixing, pour the contents from the first container into a second container. Using a new stir stick, mix the contents of this second container another minute, again scraping sides of container and stir stick. Pour immediately from this second container. Failure to pour immediately after mixing can result in product curing in mixing container and becoming very hot.

4. BUBBLES:

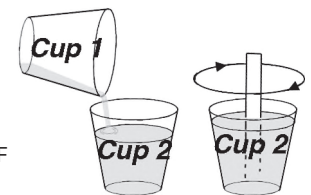
EasyCast[®] has been formulated to self-degas after being poured. In the first 30 minutes, bubbles will slowly rise to the surface of your cast. If needed use a hair dryer and pass heated air quickly over the EasyCast[®] surface to remove bubbles. Be careful, excess heat can cause resin to scorch and/or cure too quickly.



5. CURE:

For best results, cast pieces should cure at temperatures between 70°F (21°C) and 85°F (29°C). Curing time will vary depending on room temperature and thickness of cast.

Thin castings will take longer to cure than thick castings. Normal cure for castings 1/8" thick is 12 hours vs. 6-8 hours at 3/8" thickness.



6. DE-MOLDING:

Rigid type plastic molds can usually be twisted slightly to break the cast pieces free. Pushing in from the back side of the mold will also help. Note: Do not attempt to de-mold pieces that have not cured for a minimum of 24 hours. You may damage your casting by doing so.

7. TRIM & SAND EDGES:

Edges can be trimmed with a knife or sanded if needed. Use 150 grit or finer sandpaper to remove excess material. A file, sander or Dremel tool can be used for shaping and carving completely cured castings.

8. CLEAN UP:

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

TECHNIQUES:

Translucent Glass Effect. Use water-free transparent dyes.

1. Mix EasyCast® per package instructions.
2. Add transparent dye to mixed EasyCast®, per dye instructions. Less or more can be used for varying shades. Dye colors can be blended to create additional colors.
3. Blend, then immediately pour into mold.

Pearlized Color. Use mica powder to add vibrant color or create faux metal.

1. Mix EasyCast® per package instructions.
2. Add powder to mixed EasyCast®, approximately 1/4 teaspoon per 8 ounces. Less or more can be used for varying effects.
3. Mix well to ensure all powder is blended, then immediately pour into mold.

Casting Embedments. Photos, prints, fabric, etc., must be presealed with two coats of white craft glue to prevent pieces from turning transparent. Delicate items such as dried flowers should be sealed with two coats of a fast drying acrylic spray. Wood or porous pieces can be sealed with a thin coat of EasyCast® applied to the surface, however this must be done and cured before embedding to prevent air from escaping from the wood piece, which will in turn create bubbles in your casting.

Polishing & Buffing. Occasionally some EasyCast® pieces may require polishing to remove imperfections, sanding marks or to change the surface to a semi-gloss or matte finish. Cast pieces can be buffed on a buffing wheel using abrasives for plastics. Contact your local supplier of buffing equipment and buffing compounds for details on buffing plastics. NOTE: EasyCast® when polished will not develop a high gloss or wet look as per the original surface. For a high gloss surface, consider recoating the cast piece with EasyCast® or Envirotex Lite®.

TROUBLE SHOOTING:

Soft & Sticky Castings. Is a result of improper mixing or inaccurate measurements of resin and hardener. These soft or sticky castings will unfortunately have to be disposed of. **Prevention:** Do not guess at the proper ratio or just empty the two bottles into your mixing container. Use a proper measuring device and measure equal portions of resin and hardener. Always double mix as per the instructions. **Note: Inadequate measuring and mixing is the most common reason for imperfect results. Additionally, DO NOT scrape mixing container out on surface or use mixing stick to spread epoxy.**

Tiny Bubbles / Cloudy Clear Castings. This is a result of mixing cold EasyCast®. **Prevention:** Warm EasyCast® as stated in the instructions prior to using.

EasyCast® sets before completely poured. This is the result of mixed EasyCast® left setting in a mixing container too long after mixing. **Prevention:** Always pour EasyCast® immediately once mixed.

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



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