

# Introduction to Resin Craft

*How to do Casting with Casting Polyester Resin*

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These instructions provide an introduction to the general technique of casting with TAP Casting Resin. Important phases of resin craft, such as catalyzing the resin, coloring with transparent dyes or opaque pigments are covered.

With a little desire and imagination, you will be into a hobby that will give you hours of enjoyment creating lovely items for your home or gifts for friends and family.

## Catalyzing or Curing Casting Resin

Many factors influence the speed of resin gel or cure. Most important of these are:

- amount of resin used
- temperature of the room
- temperature of the resin
- temperature of the mold
- additives, such as dyes, color pigments, pearl pigments and other types of embedments

There is an optimum amount of catalyst for each type of project. In all cases, refer to catalyzing instructions on the label.

Catalyst (hardener) starts a chemical reaction that creates an exotherm (heat) which cures the resin. An excessive amount of catalyst will overheat the casting, causing crystallization and fractures. Thicker pours require less catalyst because a thick casting retains heat. A thin section dissipates the heat requiring more catalyst.

Room temperature, resin temperature and the temperature of the mold affect gel time. (The higher the temperature, the faster the gel.) Too fast a cure will cause fractures. The high heat of the fast cure also causes excessive warping and fading of colors.

Humidity slows the cure of resin. Moisture in the resin, which may come from humidity in the air or from temperature present in embedments, can cause the resin or casting to be cloudy. Keep the can of resin capped tightly when not in use.

**Important:** Always mix the resin and catalyst very thoroughly. As a rule of thumb, mix for 60 seconds. When mixing, use care to scrape the sides and bottom of the container.

**Danger** - Catalyst is *Methyl Ethyl Ketone Peroxide*. Combustible. Causes severe burns. May be fatal if swallowed. Keep from heat or open flame. Avoid contact with skin, eyes and mucous membranes. In case of skin contact, flush thoroughly with water. For eyes, get prompt medical attention. If swallowed, give large quantities of water or milk. Obtain medical attention immediately.

**Keep out of reach of children.**

## Coloring TAP Casting Resin

Use TAP Dyes for transparent colors. Add dye to resin before adding the catalyst for thorough dispersion and resistance to fading from the catalyst reaction. The dye is concentrated, so use sparingly until you obtain the desired shade. One drop of TAP Transparent Dye per ounce will create a pastel shade; three drops per ounce will generally make quite a dark shade. Stir thoroughly.

Use TAP Premium Opaque Pigments for opaque castings. Color Pigments is most thoroughly dispersed by mixing in a small amount of resin, such as ¼ ounce color pigment to one ounce of resin. Then disburse the concentrated mixture into the balance of your resin.

For veins or streaks of color, add three drops of catalyst to resin and color mixture (add this mixture slowly to the resin, stirring only slightly). Pour slowly into the mold.

In small amounts, TAP Color Concentrate will make the resin or casting translucent rather than opaque. TAP Dyes and Color Concentrate cover the full range of transparency, translucency and opaqueness.

Always add the Color Concentrate first. This will give you time to obtain the desired shade and reduce the possibility of fading. After reaching the desired shade, add the catalyst. Do a little experimenting to obtain some very unusual and pleasing effects.

### DO

- **DO** read the label instructions.
- **DO** add proper amounts of catalyst and stir thoroughly.
- **DO** use a proper mold release, when required, in a mold.
- **DO** keep detergent and acetone handy for clean-up.
- **DO** work in a well ventilated room, approximately 70°F.
- **DO** use clean, dry molds.

### DON'T

- **DON'T** add catalyst to more resin than you will pour within 10 - 20 minutes.
- **DON'T** pour catalyzed resin back into the can.
- **DON'T** work with resin or catalyst around food.
- **DON'T** pour excess resin into the sink, it will clog the drain.
- **DON'T** disturb the casting until it is thoroughly cured.
- **DON'T** make a second pour until the first has gelled.

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