

Product	Work Time	Demold Time
Quickset	30 min	8-18 hrs
High Strength 2&3	45 min	12-18 hrs

## Making Your Mold

### Step 1: Prepare your item to be molded

- ◆ Inspect item to be molded and ensure that it is clean and free from dirt, grease, oil, scratches, or blemishes.
- ◆ Fasten your item to a piece of non-porous wood or plastic using hot melt or super glue. If your item is not completely flat for gluing, you can lightly embed the item in synthetic clay as shown here. This will act as the base for molding.

### Step 2: Build your mold box

- ◆ Find a non-porous material to use for mold box. Commonly used items are old plastic containers, wood, PVC tubing, or plastic sheeting.
- ◆ Build your mold box ¼" to ½" larger than your item. Making it too large will waste your silicone molding rubber.
- ◆ Seal the mold box to the base using clay, hot melt glue, or tape. Also seal any seams on the mold box where silicone may leak out.

### Step 3: Mix Silicone Rubber

Quickset Silicone Rubber used in this illustration

- ◆ **Calculate volume of silicone needed.** 1lb. of Silicone Rubber is approximately 21 cubic inches of volume. The Mini Kit volume of rubber is approximately 5.5 cubic inches. (Cubic Inches = Length x Width x Depth)

#### BY WEIGHT (With Scale)

10:1 mix ratio. Measure out 10 parts of base to 1 part catalyst by weight.

#### BY VOLUME (1lb kit)

Using 1oz cups & scoop provided in the kit, measure 1 scoop of catalyst for every 2 ounces of Base.

#### MINI KIT (Premeasured)

Shake Catalyst bottle and add it to the container of Base. (Must use entire kit at one time.)



- ◆ **Mixing Instructions:** Mix thoroughly, making sure to scrape sides and bottom of the container until a uniform consistency is achieved with no swirls/striations in the rubber. Mixing and pouring must be done within the work time constraints of the silicone product you are using, (See chart at top of page)

### Step 4: Pouring your silicone rubber mold

- ◆ Once silicone rubber is thoroughly mixed, pour into mold box from one corner allowing silicone to naturally flow over and around your item. Silicone should cover your item ¼" beyond the highest point on your item.
- ◆ Quickset silicone will cure in approximately 8-18 hours, whereas High Strength 2 & 3 will cure in 18 hours. All silicone curing times may vary based on temperature and humidity.
- ◆ Once the silicone rubber is cured, break away the mold box from the mold.
- ◆ Gently separate silicone from original item and remove. You are now ready to cast parts.

#### Helpful Tips

- ◆ **Choosing a Silicone Rubber:**
  - Quickset Silicone Rubber is good for simple one and two piece molds such as the flat ornamental owl used in the molding instructions above.
  - If your item/part is more 3 dimensional with undercuts, use High Strength 2 or 3 silicone rubber, such as the bunnies used in the casting instructions on the reverse side. A one or two piece mold will need to be determined based on the object being molded.
- ◆ Always shake the catalyst bottle before using.
- ◆ Mini Kit Catalyst bottle may feel empty due to the small amount needed to cure the base.
- ◆ Best if products are used within one year of purchasing.
- ◆ Pressure Casting: If you plan on pressure casting your resin, you must either vacuum or pressure cast the rubber to eliminate tiny air bubbles under the mold surface.

# Casting Your Parts

Product	Work Time	Demold Time
SuperPlastic (Regular)	90 sec	5-8 min
AlumiRes (RC-3)	3 min	5-10 min
White	3 min	5-10 min
Slow Set	7 min	30-60 min
Slow Set 15	15 min	1-3 hrs



## Step 1: Measure out equal parts of side "A" and side "B"

- ◆ Shake black side "A" and Alumilite Regular side "B" prior to pouring from bottles.
- ◆ Before casting your part, preheat mold in an oven for 140°F or in a microwave for 1 minute per pound of rubber.
- ◆ A preheated mold will allow resin to properly cure and harden especially when casting small or thin parts.
- ◆ Do not microwave resin.



## Step 2: Combine both sides into a mixing cup & mix thoroughly

- ◆ Use stir sticks for proper stirring. Do not shake.
- ◆ Use a paper or plastic cups. Do not use Styrofoam cups.
- ◆ Adequate mixing should be achieved in 25-30 seconds.
- ◆ No swirls should be visible once mixed.
- ◆ Mixing and pouring of resin into mold must be done within the stated working time of the casting resin being used (see chart at the top of the page).



## Step 3: Pour mixed resin into mold

**High Strength 2 Silicone Rubber used in this illustration**

- ◆ While mold release is not required with silicone molds, we recommend its use to increase mold life and to make demolding easier. Release is required for molds other than silicone.
- ◆ Slowly pour casting resin down the side of your mold allowing the resin to flow naturally into the detail of your silicone rubber mold.
- ◆ If the mold contains undercuts or crevices, rotate mold to allow resin to flow into these areas.
- ◆ You can also gently squeeze the mold to force out any trapped air within.



## Step 4: Wait for resin to cure and demold part

- ◆ Shortly after work time is exceeded, the material will begin to transform from liquid to solid. This will also be visible by a color change in the resin.
- ◆ Demold times will vary depending on size of part, preheating of mold, and Alumilite casting resin being used (see chart at the top of the page).
- ◆ As a general rule, the larger the part, the quicker it will cure. Small and/or thin parts require more time to cure. Preheating mold will also assist with cure.
- ◆ To demold, gently flex the rubber mold away from the casting and pull the cast resin piece out.



## Helpful Tips

- ◆ Lightly dust your silicone mold with talc or baby powder to break the surface tension and reduce or eliminate the possibility of air bubbles in your casted part.
- ◆ Apply UMR mold release to silicone molds to prolong the life of the mold.
- ◆ Both liquid mold making rubber and resin are sensitive to moisture. Replace caps immediately after using, store in a cool dry place, and use within 1 year of purchase.
- ◆ When using Alumilite Regular or Super Plastic, lightly shake side "B" prior to use.



315 East North Street  
Kalamazoo, MI 49007

Phone: 800-447-9344

Fax: 269-488-4001

Email: [world@alumilite.com](mailto:world@alumilite.com)

Website: [www.alumilite.com](http://www.alumilite.com)