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# MasterMold<sup>®</sup> Flexible Moldmaking Compound

## Make tough, flexible molds in 1 easy application.

- Reproduces the finest details
- Ideal for vertical and overhead surfaces
- Molds are reusable
- Safe to use
- Excellent for deep undercuts
- Outstanding dimensional memory
- High-strength

Choose from 2 versions:  
**MasterMold 12-3** for creating a mold by brushing it on and building it up, and **MasterMold 12-8** for creating a mold by pouring it onto the model.



**MasterMold** makes it easy to replicate capitals, moldings, finials, ceiling medallions, statues, ceramics, carvings, cabriole legs, jewelry and much more.

**MasterMold** can be used with most room-temperature curing casting compounds.



*In the picture above the **MasterMold 12-3** is removed from a casting of the terra cotta lion's head.*

## WHERE TO USE

**MasterMold 12-3** is used for making molds of: 1) architectural elements which cannot be removed from the structure; 2) models with deep undercuts; 3) models such as busts, statues and furniture parts, where a 1 part mold is desirable; 4) high and low reliefs. For example, it can be used to reproduce capitals (shown in the pictures on the opposite page) ceiling medallions, moldings, corbels, figurines, finials, and other 3-dimensional objects. **MasterMold 12-8** is a pourable version of **MasterMold 12-3**. It is used for making molds of objects or structures which can be laid flat in a container so that the moldmaking compound can be poured onto and around them. For example, it can be used to reproduce doll faces, jewelry, moldings, low reliefs, medallions, patterns, models and tools.

## CHARACTERISTICS

**MasterMold 12-3** is formulated for versatility, high elasticity and strength. It is a 2-component polyurethane system and can be easily spread on any model to produce a smooth, bubble-free mold surface which captures the finest details. Its elasticity, softness and high tear strength permit easy peeling from intricate and undercut shapes. At the same time, its exceptional dimensional memory permits casting molds without any exterior support in numerous instances. For example, a mold can be removed from a totally enveloped shape, such as a table leg, by cutting one side with a knife. Then the mold can be held together with rubber bands or simple fasteners or casting. **MasterMold 12-8**, as mentioned above, is a pourable version of **MasterMold 12-3**.

Molds are reusable many times depending on their configurations and casting compounds used. **MasterMold** is safe to use and requires no special personal protection other than gloves and aprons to prevent contact with skin and clothing. Heating above 250°F should be avoided because harmful vapors can be released.



## SPECIFICATIONS:

### **MasterMold 12-3®**

#### Part A Resin:

Blue, no-slump thixotropic paste.  
8.6 Lbs. /Gl. (1.03 KG/Liter) approx.

#### Part B Converter:

Yellow, no-slump thixotropic paste.  
11.2 Lbs. /Gl. (1.30 KG/Liter) approx.

Hardness (Shore A): 40

Tensile Strength: 223 psi

Elongation: >600%

Working life: 1 to 1.5 hrs. @ room temperature (68-77°F, 20-25°C).

Hard in 8 to 12 hours @ room temperature.

### **MasterMold 12-8®**

#### Part A Resin:

Clear, pourable viscous liquid  
8.7 Lbs./Gl. (1.04 KG/Liter) approx.

#### Part B Converter:

Pink, pourable viscous liquid  
8.9 Lbs/Gl. (1.07 KG/Liter) approx.

Hardness (Shore A): 21

Tensile Strength: 57 psi

Elongation: 600%

Working life: 1 to 1.5 hrs. @ room temperature.

Hard in 12 to 16 hours @ room temperature.

## INSTRUCTIONS FOR USE

1. Prepare the model by removing dirt, grease and other contaminants from it. Seal porous models with shellac or similar coatings. Next, apply a release agent to the model's surface and allow it to dry. Many release agents work well including ABHESIVE 15B (silicone-based), ABHESIVE 15C (water-based), oil sprays and waxes.

2. Mix MasterMold Part A with an equal volume of MasterMold Part B. If applying MasterMold 12-3, first brush a thin layer over the model, being careful to cover all surfaces. Then, apply a second layer over the first with a putty knife or spatula and build up the layer to as much as 3/8 inch. One has plenty of time to apply the material because the working life is about 1 hour.

In some instances, where the mold is large or may require external support to prevent sagging while casting, a support mold is desirable. A support mold can be made from WoodEpoxy® or plaster. The support mold should be built up on top of the MasterMold 12-3 mold in interlocking sections. If WoodEpoxy is used for the support mold, the exterior of the MasterMold 12-3 must be covered with a release agent to prevent the support mold from adhering to the mold. When the support mold has hardened, it can be removed and the sections refitted together. The MasterMold 12-3 mold can be peeled from the model and fitted into the support mold. The assemblage can be taped or banded together before casting.

3. If using MasterMold 12-8, position the model at the bottom of a container which can be removed or cut away after the material has hardened. Pour MasterMold 12-8 slowly over the model and allow it to harden approximately 12 hours until it is firm. Then remove the mold from its container and remove the model from the mold.

4. Before casting, coat the inside of the mold with a release agent. (A release agent is generally not necessary if plaster is the casting compound.) Cast the mold, and remove the casting from the mold when it has hardened. Many kinds of materials can be used for casting, including epoxy, polyurethane, polyester, concrete, gypsum, wax and other materials which harden at room temperature. Materials which are very hot or generate heat as they harden should be used cautiously as too much heat may damage the mold.

The above instructions are intended as a general guideline for using MasterMold. Detailed instructions are shipped with the product.

## REUSE AND STORAGE

MasterMold molds are reusable (see above). They will not deteriorate over time and can be stored indefinitely for reuse. It is best to store the molds with models, otherwise, the molds may shrink a little. Store the molds in a dry place at room temperature.



Picture 1) Apply a release agent to the model so the mold will not stick to it. 2) Apply **MasterMold 12-3** to the surface of the model. 3) The mold can easily be peeled from the model after it has hardened. 4) If a support mold is used, the **MasterMold 12-3** mold is fitted snugly inside of it before the mold is cast. 5) A perfect copy is created with **MasterMold 12-3**.

The products below can be used with MasterMold® to get the results you need.

## CASTING COMPOUNDS

### WOODCAST

Casting compound which is light-weight, strong and shatter and chip resistant. Makes smooth, bubble-free castings which reproduce fine details. It can be painted, stained and wood-grained. Excellent for exterior and interior use. Color: light beige. Hardens in 2-8 hours at room temperature.

### ABOCAST 4-4

Best choice for rigid molds and castings. Reproduces precision detail. Aluminum filled. Can be machined with common metal-working tools.

### ABOCAST 8-3

Versatile, clear epoxy casting resin. Its slow reactivity and low exotherm allow larger, as well as smaller, castings. It can be filled to obtain unlimited modifications. Good for both exterior and interior exposure. This 2 component system is also excellent with fiberglass and other reinforcements for structural laminates and composite structures. Its low shrinkage and superb adhesion are unsurpassed.

### ABOCAST 8503-3

First choice when virtually colorless casting compound is desired. This 2-part compound hardens in about 1-10 hours at room temperature, depending on the size of the casting, into a very hard, strong mass. It hardens without the high shrinkage of acrylic or other resins, and is recommended for precise reproductions.

### GYPSUM-1

A standard for plaster casting. This neutral, general purpose gypsum cement produces figures harder and stronger than ordinary casting plasters. It reproduces fine details and gives a hard, chip resistant smooth surface. 11 pounds yields approximately 1 gallon of casting plaster that sets in 20-25 minutes. Paintable. Not recommended for exterior use or exposure to water.

### GPYSUM-2

Fast hardening gypsum cement for outdoor use. Recommended for figural, decorative and ornamental garden pieces that capture fine details. Sets rapidly and demolds in as little as one hour after set-up. Gypsum-2 is mixed with fine sand and water to make strong, hard castings that resist chipping. Paintable. Not recommended for castings that hold water or architectural applications.

## RELEASE AGENTS

### ABHESIVE 15 B

Silicone-based. Apply by brushing or spraying.

### ABHESIVE 15C

Polyvinyl alcohol/water based. Apply by brushing. Can be removed with water.

## SUPPORT MOLDS

### WOODEPOX

WoodEpoX Light-weight (appx. 3.8 lb per gallon) epoxy paste. Easy to shape by hand and apply to vertical surfaces. Very strong and durable. Recommended when making multiple castings.

### GYPSUM-1

Plaster casting compound. Hardens quickly. See above.

The above information is the result of accurate laboratory and field tests. However, no warranty, express or implied, is offered as uses and applications are beyond our control. Users are urged to test and adapt the above data in their own conditions and environments prior to product adoption. Specifications may be subject to state-of-the-art changes.



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