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# AeroMarine Products AM128 Silicone Mold Making Rubber RTV

### **Product Description**

AeroMarine Products AM128 Silicone Mold Making Rubber RTV is a two component, room temperature tin-based condensation cure silicone material. The cured rubber has excellent mechanical properties and good shelf-life stability. This material is an excellent choice for making molds of intricate patterns, multi-piece molds and applications where medium durometer, dimensional stability and tear resistant rubber are required. AM128's mix ratio is 10:1 by weight. You will need a gram scale to accurately weight out this product.

#### \*\*SHAKE PURPLE CATALYST VIGOROUSLY FOR 60 SECONDS BEFORE USING!\*\*

## **Key Features**

- · High tear strength
- Long pot life
- · Excellent dimensional stability

## **Main Applications**

- · Molds for polyester, polyurethane and epoxy resin castings
- · Molds for technical articles and prototypes
- Molds for furniture and picture frame replication

#### **Typical Properties**

Uncured properties	"A" component	"B" component
Appearance	White	Purple
Viscosity, cps	25,000	200
Mix Ratio	10:1 by weight	
Catalyzed properties(10% cat Purple)		
Specific gravity	1.25	
Pot life	~45 minutes	
Tack-free time	6-8 hours	
De-mold time	16-24 hours	
Typical cured properties (7 days @ 25C)		
Durometer	28A to 32A	
Tensile Strength, psi	525 psi	
Elongation, %	350%	
Tear B, ppi	120 ppi	
Linear shrinkage	0.006 in/in	
Useful Temperature Range	-50F to 450F	

## AM128 IS NOT for use in ovens!



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#### **Cure Characteristics:**

The curing process begins as soon as the catalyst is mixed with the silicone base. Under normal temperature (25C) and humidity (50% RH) conditions, the material will cure as described in the data above. Any large change in temperature (+/-5C) or humidity (>60-70%) may alter the cure profile of the material.

Shelf life: When stored into original containers, in a cool, dry place, the shelf life of AM128 is six months.

Do NOT use AM128 Silicone Rubber with any sulfur-based clay or with latex gloves!

#### Silicone RTV Rubber Mold Making 101

Making a mold can be very simple or it can be an art. It depends on the intricacy of your part. If you have never made a silicone mold before, begin by making a mold of a simple part before making a mold of a complicated part

You will need an original part, clean mixing containers, mixing utensils, and a mold box into which to place your piece while making your mold. A mold box can be made out of almost anything, including a reusable food container, cardboard, wood and/or Legos. You may also need a digital scale, a glue gun and/or non-sulfur based clay. Depending on the size of the part, 1/2" of silicone mold-making rubber is the minimum thickness necessary for the walls of your mold. Making it too thick will reduce the flexibility of the mold; while too thin will reduce the resistance to tearing.

\*\*If you are using a brushable silicone, you will need a mother mold, a hard outer shell that holds the brushable mold in place while you pour your casting resin into your mold. Mother molds can be made from fiberglass, plaster or specially formulated urethanes.\*\*

Silicone RTV mold making rubber may soak into a porous surface like wood or plaster. To prevent sticking, first seal the part with a sealant appropriate to the material.

## There are 3 basic types of molds:

**BLOCK mold, one piece.** The part usually has no negative draft or undercuts. Building this mold is simple. Mount your part in the center of a container or mold box. You will need at least ½ inch of silicone on all sides of the part. Apply mold release, if needed. Next, pour your mixed silicone in the shallowest area of the container. Pour only into this spot and let the silicone flow naturally around the part. This reduces air bubbles in the silicone. Once the silicone has cured, you can de-mold your part.

**BLOCK mold, multiple piece.** This part has undercuts and/or is complex. The mold must be taken apart to remove casing. You can make this type of mold using non-sulfur, non-drying modeling clay and pouring the silicone in 2 separate pours. Use a mold release between the pours to keep the silicone from sticking to itself. To keep the cured mold together, you can use rubber bands or painter's tape.

For detailed instructions and videos on mold making, please visit our website, www.aeromarineproducts.com

#### **Mold Release**

Generally, silicone RTV mold making rubber does not stick to anything, and nothing will stick to it. *The exception is that it will stick to itself, other silicones, silica, and glass.* Mold release will prolong the life of your mold because it reduces the wear on the mold by making it easier to remove your cast piece.

#### Measuring and Mixing

Shake the catalyst very vigorously for 60 seconds before weighing it. Weigh parts A and B accurately. Once you have correctly measured both parts, mix parts A and B together with a plastic or wooden stirring utensil. Take care to scrape



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the sides and bottom of the mixing container. Keep your stirring utensil on the bottom of the container to reduce the amount of air being mixed into the silicone. Mix for several minutes, scraping the sides and bottom frequently, until the silicone is one uniform color with no streaks.

## **Pouring Silicone**

When pouring your silicone, do NOT pour it directly onto the part. Instead, pour the silicone into the shallowest part of the mold and let it find its own level. This method prevents air bubbles forming on the surface of your part.

## Storing Your Cured Silicone Mold (Storage longer than 1 week)

First, apply mold release to your cured mold. Second, pour your casting material into the prepared mold. Or, you can insert a previously cast cured piece into the prepared mold. Third, put your mold (if a smaller mold) with the piece in it into a doubled "Ziploc" type bag with all the air pressed out of the bags. Fourth, seal the bags tightly closed using either a plastic bag sealer or over-tape them with duct tape. For larger molds, use very heavy duty doubled garbage bags, remove all the air and seal tightly either with a plastic bag sealer or over-tape with duct tape. Finally, put your sealed, bagged mold into a plastic storage container with a lid, close the lid and store on a flat shelf/surface (NOT the floor or window) at continuous 70F out of direct sunlight.

## **Cleaning Your Silicone Mold**

Wash your cured silicone mold with warm/hot water and mild liquid dish soap. Pat dry thoroughly and then let the mold air-dry fully. Never use any type of abrasive soap, cleaner or pad to clean your silicone mold!

## We also sell several accessory products for silicones:

Accelerators to speed cure
Extra catalyst
Thinner to lower the viscosity of silicone RTV
Thixotropic catalyst for brushing onto vertical surfaces
Food grade silicones

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