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AeroMarine Products AM115T Translucent Silicone Mold making Rubber

Product Description

AeroMarine Products AM115T Silicone Mold making Rubber is a translucent, two-component, room temperature condensation tin-cured silicone material. AM115T is an excellent choice for moldmaking of intricate patterns and applications where a lower durometer and dimensional stability are required. AM115T is particularly useful when you need to see "inside" a mold when cutting a parting line. AeroMarine AM115T Silicone Moldmaking Rubber can be made thixotropic (brushable) by adding our Silicone Thickener. You can color AM115T with any tin based silicone pigments. <u>AM 115T's mix ratio is 10:1 by weight—you must use a digital gram scale for accurate measurements!</u>

Key Features

- High tear strength
- Translucent (so the master part can be seen inside of the mold)
- Excellent dimensional stability

Primary Applications

- Molds with complex parting lines
- · Molds for polyurethane, epoxy resin, and polyester castings
- Molds for technical articles and prototypes
- Molds for replicating skin effects/animatronics—<u>DO NOT use on human skin!</u>

Typical Properties

Uncured properties	"A" component	"B" component
Appearance	Translucent	Clear
Viscosity, cps	18,000	200
Mix Ratio	10:1 by weight	
Catalyzed properties(10% catalyst)		
Specific gravity	1.08	
Pot life	45 minutes	
Tack-free time	8-12 hours	
Demold time	16-24 hours	
Typical cured properties (3 days @ 25C))	
Durometer	15A	
Tensile Strength, psi	503	
Elongation, %	605	
Tear Resistance, pli	120	
Linear Shrinkage	0.002 in/in	
Useful Temperature Range	50F to 350F	

AM115T IS NOT for use in ovens!

<u>Recommendations:</u> Use a vacuum to de-gas this product before use under pressure. Vacuum AM115T for 2-3 minutes (29 inches of mercury). Leave enough room in the container for AM115T to expand. Allow an additional 24 hours before using the mold to let the mold to develop its maximum mechanical strength.

Do NOT use AM115T Translucent Silicone Rubber with any sulfur-based clay or when wearing latex gloves!



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Shelf life: Stored in the original containers, in a cool, dry environment out of direct sunlight, AM115T's shelf life is six months.

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 the part you want to reproduce. If you have never made a 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 Legos. You may also need a digital scale, a glue gun and/or clay. Depending on the size of the piece, 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 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.

Common 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. Because of the translucent nature of this silicone, you can make the mold as a one piece block mold and cut it carefully apart, along the best parting line determined by your original piece. You can also 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 it. To keep the cured mold together, you can use rubber bands or painter's tape.

GLOVE mold, brushed onto the part. This part is either on a vertical surface, has undercuts or is a statue. To make this type of mold, brush a small amount of mixed silicone onto the part for a very thin "detail coat". This will capture all the fine detail of your part. Once the detail coat cures, apply a thicker (about 1/8") coat of silicone onto your part. When the silicone has cured, you can pull the mold off your part like a glove. This mold technique also works well for landscape and architectural applications.

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 by reducing the wear on the mold by making it easier to remove your cast piece.



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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 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 well mixed. Because this silicone and catalyst are the same translucent color, it is a good idea to continue mixing and scraping the sides of the container for a few more minutes after you think it is well mixed.

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!

If you have further questions about making your mold, please contact us either by email: <u>info@aeromarineproducts.com</u> or by phone toll-free 1.877.342.8860.

We also sell accessory products for silicones:

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

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