PRODUCT BULLETIN

pathwaypolymers

POR-A-MOLD® 2060

Applications

Por-A-Mold 2060 (PAM 2060) is used to make molds of detailed masters that contain shallow undercuts. Because Por-A-Mold 2060 is clear, it is ideal for projects that require the master to be visible during molding and cutting. Some of the most common uses of PAM 2060 are concrete formliners and to make molds for point-of-purchase displays, rapid prototypes, special effects, taxidermy, and sculpture reproductions.

Characteristics

Por-A-Mold 2060 is a two-part polyurethane molding system. Por-A-Mold 2060 is mixed one-to-one by volume (or 100-to-108 by weight) and cures at room temperature. PAM 2060 contains no fillers and cures to a firm (Shore A58 ± 2), medium amber rubber.

Instructions for Use

Prepare Master and Mold Housing

First, clean and dry your master thoroughly. If the master has a porous surface (clay, concrete, plaster, etc.) or is made of sulfur-based clay, you must seal it. You can use polyurethane varnish, polyurethane sealant, or paste wax to seal your master. Next, anchor your master and seal the base so that PAM 2060 does not leak under your master. A hot glue gun works to anchor and seal the base at the same time. Also, you should seal all of your mold housing connections with sulfur-free clay or hot glue. Then, apply an appropriate release agent (we recommend Synlube 531) to the master and interior of the mold housing. Apply release agent sparingly, while coating all surfaces of the master. Too much release agent may cover the details of the master. You should allow the release agent to dry approximately 10 minutes before you pour your mold.

Measure Curative and Prepolymer

Note: Por-A-Mold 2060 provides approximately 20 minutes for you to mix and pour the mold before it begins to gel.
Make sure that curative and prepolymer are room temperature before mixing them. Please note that in cold weather it may take up to 24 hours for the curative and prepolymer to reach room temperature. Using two clean, dry, plastic containers of equal size, measure equal amounts of the curative (part A) and the prepolymer (part B).

Mix Curative and Prepolymer

After you prepare the master and mold housing and measure the curative and prepolymer, you are ready to pour the curative and prepolymer into another clean, dry, plastic container. Scrape the curative and prepolymer containers to move all of the material into the mixing container. Combine the two ingredients for several minutes until no color striations are visible. Be sure to scrape the sides and bottom of the mixing container while combining the two ingredients. You must mix the curative and prepolymer completely so that PAM 2060 will cure correctly. If air bubbles form during mixing, you should degas the mixture to remove them.

Pour Mold

To ensure that no air bubbles form over the details of your master, you can brush a thin base coat onto the master and then pour the rest of the 2060. The best way to pour a mold is to tilt your mold slightly and pour into one spot at the corner of the mold, allowing the material to cover your master slowly like the flow of lava. When you have finished pouring the mold, you may lightly spray release agent on the top of PAM 2060 to break any air bubbles that have risen.

Demold and Cure Mold

Once you have poured your mold, allow the mold to cure 16 hours before demolding. To prolong the life of the mold, allow it to cure for 3–4 days before using it.

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Properties

Curative (Part A) and Prepolymer (Part B)

The following table lists the properties of the curative and prepolymer of Por-A-Mold 2060 before they have been mixed.

Property	Curative (Part A)	Prepolymer (Part B)
Color	Light Amber	Clear
Mix Ratio by Weight	100	108
Mix Ratio by Volume	1	1
Shelf Life	6 Months	6 Months
Specific Gravity @ 75° F (24° C)	0.988	1.065
Viscosity @ 75° F (24° C), CPS	275	5000

Mixed Curative (Part A) and Prepolymer (Part B)

The following is a list of the properties of Por-A-Mold 2060 after the curative and prepolymer have been mixed.

Property	Time	Temperature
Mix Time*	1–2 Minutes	75° F (24° C)
Pot Life*	15–20 Minutes	75° F (24° C)
Gel Time*	20–25 Minutes	75° F (24° C)
Cure Time*	24 Hours	75° F (24° C)
Demold Time*	16 Hours	75° F (24° C)

*Mix time, pot life, gel time, cure time, and demold time vary depending on mass and component temperature.

Cured Por-A-Mold 2060

The following table explains the properties of Por-A-Mold 2060 after it has cured.

Property	Cured Product
Color	Medium Amber
Elongation, %	900
Modulus, PSI, 100% 200% 300%	220 360 490
Rebound, Bashore, %	62
Reversion Temperature	270° F (132° C)
Shore Hardness	A58 ± 2
Specific Gravity	1.0279
Tear, Die C, PLI	200
Tear, Split, PLI	33
Ultimate Tensile, PSI	1600

Storage and Handling

Keep the Por-A-Mold 2060 container tightly closed when not in use and store at temperatures between 70–80° F (21–26° C). Do not expose the curative or prepolymer to moisture! If moisture contaminates Por-A-Mold 2060, it will not cure. If these storage requirements are met, Por-A-Mold 2060 carries a shelf life warranty of six months.

Be sure to read the *Material Safety Data Sheet* that comes with Por-A-Mold 2060. When working with this material please observe the following safety precautions.

- Wear safety glasses, chemical-resistant rubber or plastic gloves, and an apron.
- Avoid prolonged or repeated contact with skin.
- In the case of skin contact, wipe affected area with isopropyl alcohol, followed by soap and water.
- In the case of eye contact, flush eyes with water for 15 minutes and consult a physician.
- If swallowed, drink one to two glasses of water and seek medical attention immediately.

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