



**Brick in the Yard  
Mold Supply**  
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## Technical Data Sheet

This is a new formula series of Polyurethane mold rubber formulated for concrete, GFRC, and plaster casting applications. UreMold rubber materials are tough and abrasion resistant. These formulas range from a relatively soft 30A to a very firm, semi-rigid 80A. Liquid mold rubber may be pigmented with our PolyPig colors. PolyFiber thickener may be used to thicken UreMold rubbers to a paste consistency for brush-on applications. UreMold is not recommended for silicone casting.

Brush-on molds may be made with UreMold rubbers, but care must be taken to prevent delamination, or layers peeling apart. A good brush-on mold must be made as fast as possible to get a strong chemical bond between layers of UreMold.

Pattern Prep: Non-porous patterns must be released with E236 spray release or similar pure silicone oil release. Porous patterns such as wood, plaster, bone, or concrete should be sealed and then released with E236. UreMold rubbers are VERY adhesive in their liquid state and will bond tenaciously to most unprepared surfaces!

Casting: Unmodified gypsums generally don't need release, but concrete and GFRC require a water-based concrete release for demolding and mold protection.

**UreMold30:** Our soft 30A formula is intended for small decorative concrete or plaster parts. This rubber is soft enough to pull around most undercuts. Great for casting small busts and other sculptures. May also be used to produce wax patterns for art bronze casting.

**UreMold44:** Our UreMold44 is ideal for plaster and concrete pours, such as mantels and column capitols with minimal undercuts. This formula is also well suited for molding ceramic master molds. This formula is moisture resistant and ideal for molding patterns where moisture might be present. Good for Dry-Tamp cast stone molds.

**UreMold60:** This is a firm 60A rubber that is ideal for plaster and concrete parts with minimal undercuts. Firm, but still flexible. Very tough and abrasion resistant.

**UreMold70:** Very firm 70A rubber for form liners and other concrete applications requiring a very firm rubber.

**UreMold80:** This is a firm, almost semi-rigid rubber for concrete stamping and casting hard rubber industrial parts. Very tough and abrasion resistant.

<b>Product</b>	<i>UreMold 30</i>	<i>UreMold 44</i>	<i>UreMold 60</i>	<i>UreMold 70</i>	<i>UreMold 80</i>
<i>Mix Ratio</i>	1:1 By Wt. or Vol.	2A:1B By Wt. or Vol.	2A:1B By Wt. or Vol.	2A:1B By Wt.	2A:1B By Wt. or Vol.
<i>Hardness</i>	30A	44A	60A	70A	80A
<i>Pour Time</i>	25 min.	15 min.	15 min.	25 min.	25 min.
<i>Demold</i>	16 Hours	16 Hours	16 Hours	16 Hours	48 Hours
<i>Specific Gravity</i>	1.04	1.01	1.03	1.04	1.02
<i>Color Cured</i>	Amber	Beige	Amber	Amber	Amber
<i>Viscosity (cP)</i>	1,800	3,400	1,200	3,000	2,000
<i>Cubic in./lb.</i>	26.7	27.5	26.9	26.5	27.2

**Warning:**

Prior to use, make sure to read the Material Safety Data Sheet (MSDS) for this or any BITY product. It is available from BITY upon request. The safety of BITY products can be ensured by carefully reading and following the directions. Exercise caution. Part A is composed of a TDI prepolymer. Lung damage and sensitization can occur as a result of vapors when materials are heated or sprayed. Only use in well-ventilated areas. Severe irritation can occur if it comes into contact with the skin and eyes. Flush eyes with water for 15 minutes and promptly seek medical attention. Use waterless hand cleaner first, then wash with soap and water to remove from skin. Prepolymers contain minimal TDI, which, if ingested, may have carcinogenic effects. Refer to MSDS. Part B causes irritation to both the eyes and skin. In case of contamination, rinse eyes with water for 15 minutes and seek prompt medical help. Remove from skin with soap and water. When mixing with Part A follow precautions for handling isocyanates. Please note that the information provided in this bulletin is deemed reliable. There is no expressed or implied warranty concerning the accuracy of the data, the results obtained from using it, or the possibility of patent infringement. The user is responsible for determining if the product is suitable for their intended use and accepts all associated risks and liability.

**Mixing Instructions:**

Liquid urethanes have a tendency to absorb moisture from the atmosphere due to their sensitivity. Tools and containers for mixing must be clean and made of metal, glass, or plastic. Store and use materials in a temperature-controlled environment (73°F/23°C). Before dispensing, make sure to stir Part B thoroughly- it's important! Combine equal amounts of Parts A and B in a mixing container, and mix vigorously for at least 3 minutes, making sure to scrape the sides and bottom. When mixing large quantities (16 lbs./7 kg. or more) at once, utilize a mechanical mixer for 3 minutes, then proceed with careful hand mixing for one minute as instructed earlier. Transfer the entire amount into a new mixing container and repeat the procedure. Even though this product minimizes air bubbles, vacuum degassing will further decrease trapped air. Castings with no bubbles whatsoever can be achieved through the use of a pressure casting technique and a pressure chamber.

**Pouring Instructions:**

To get the best outcome, pour your mixture at the lowest point of the containment field in one spot. Allow the rubber to find its level by moving up and over the model. Keeping a uniform flow is key to reducing trapped air. The level of the liquid rubber should be at least 1/2" (1.3 cm) above the highest area of the model surface. For proper curing, leave the rubber to cure overnight at room temperature (73°F/23°C) before demolding. By using mild heat, the time required for curing can be reduced. Avoid curing rubber in temperatures lower than 65°F/18°C. After rubber has cured at room temperature, heating the rubber to 150°F (65°C) for 4 to 8 hours will increase physical properties and performance. The type of release agent to use depends on the material being cast. To properly release wax, liquid rubber, or thermosetting materials, use a spray release designed for mold making. When it comes to releasing abrasive materials like concrete, Water Based Release is the recommended option. If cured rubber is used and stored correctly, it will be tough, durable, and perform well. How you use the rubber determines how long it will last. Contact BITY Mold Supply directly with questions about this material relative to your application.