



BRUSH-ON 35

Brushable Urethane Rubber Compound

PRODUCT OVERVIEW

Easy to mix and apply with a brush or spatula, BRUSH-ON 35 paints onto vertical surfaces and will cure with negligible shrinkage to a durable rubber that performs in production. Common applications for BRUSH-ON 35 include on-site architectural restoration molds, reproducing sculpture (art bronze wax molds - lost wax process) and making special effects.

TECHNICAL OVERVIEW

Key Values: ~*Mixing Ratio:* One to One by volume. (3:2 by weight) ~*Shore A Hardness:* 35
~*Pot Life:* 20 minutes ~*Cure Time/Demold:* Overnight/16 hrs. ~*Color:* Grey-Green

Description: BRUSH-ON 35 consists of two components, Part A (Yellow Label) and Part B (Blue Label). When combined in a mix ratio of one to one by volume (3 parts A to 2 parts B by weight), BRUSH-ON 35 cures to rubber that makes an excellent mold.

<u>Properties</u>	<u>Viscosity</u>	<u>G/CC</u>	<u>Cu.In./Lb.</u>	<u>Mix Ratio</u>
Part A	-	-	-	-
Part B	-	-	-	-
Mixed	varies	1.29	21.5	1:1 by volume

Shore A Hardness 35

Shrinkage Negligible

Start By Preparing Your Model –

Some Materials Must Be Sealed . . . Materials should be stored and used in a warm environment (72° F / 23° C). To prevent adhesion between the rubber and model surface, models made of porous materials (gypsum plasters, concrete, wood, stone, etc.) must be sealed prior to applying a release agent. **Superseal** (available from Smooth-On) is a fast drying sealer suitable for sealing porous surfaces without interfering with surface detail. Shellac is suitable for rough contours and modeling clays that contain sulfur or moisture (water based). Non-Porous models made of metal, glass, acrylic, pvc, other hard plastics and sulfur-free clays require only a release agent which should be allowed to dry before applying the rubber.

In all cases, the sealing agent should be applied and allowed to completely dry prior to applying a release agent.

Applying A Release Agent . . Polyurethanes are adhesive. A release agent is required to facilitate demolding. You can purchase a suitable release agent (Universal Mold Release) from Smooth-On or from your local Smooth-On Distributor. **~IMPORTANT:** Apply release agent to all surfaces that will contact the rubber. To ensure thorough coverage, lightly brush the release agent with a soft brush over all surfaces of the model. Follow with a light mist coating and let the release agent dry for 15 minutes.

If there is any question about the effectiveness of a sealer/release agent combination, a small scale test should be made on an identical surface for trial.

Measuring & Mixing . . .

Measuring the components of BRUSH-ON 35 requires two containers. The first will be used for measuring out equal amounts of Part A and Part B. The second should be large enough to contain equal amounts of both components and allow thorough mixing. Mixing tools and containers should be clean and made of metal, glass or plastic. Materials should be stored and used in a warm environment (72° F / 33° C). **IMPORTANT:** Shelf life of product is drastically reduced after opening. Remaining product should be used as soon as possible. Immediately replacing the lids on both containers after dispensing product will prolong the shelf life of the unused product. **XTEND-IT Dry Gas Blanket** (available from Smooth-On) will significantly prolong the shelf life of unused liquid urethane products.

Mixing . . . Part A is a paste with the consistency of cake frosting. Fill a container to the top with this paste, making sure to eliminate any large voids. Level off the top of the container and remove any excess material. The paste should then be thoroughly emptied into a larger container that will act as your mixing container. Next, fill the original container to the top with Part B (liquid) and empty it into the mixing container. After dispensing equal amounts of Parts A and B into mixing container, **mix thoroughly for 3 minutes** making sure that you **scrape the sides and bottom of the mixing container several times.**

Applying The Rubber . . . This product must be applied in layers. Moldmakers generally find that four to six layers (minimum 3/8") thickness is suitable for a working mold. Using a stiff brush, the first coat of rubber should be applied in a thin layer to capture intricate detail. Use dabbing strokes, especially around undercuts, to reduce entrapped air. Subsequent coats will add strength to the mold. Let the first coat dry for 30-40 minutes at room temperature or when it becomes "tacky" before adding the next coat. Repeat until the necessary thickness is achieved. Do not allow rubber to fully cure between layers, as delaminating may result. **Note:** Although not necessary, adding a small amount of liquid color pigment to every other mix of rubber will help you distinguish one layer from the next. This will ensure that you apply a thorough coating each time and help build uniform layers.

Curing

Mold Performance

Curing . . . Allow the mold to cure overnight (at least 16 hours) at room temperature (77 F/25 C) before demolding. Do not cure rubber where temperature is less than 65 F / 18 C. Post curing the rubber after rubber has cured at room temp. (applying heat – 150°F/60°C for 4 – 6 hours) will increase physical properties and performance significantly.

Using The Mold . . . A release agent facilitates demolding and should be applied to the mold before each casting. The type of release agent to use depends on the material being cast. Universal Mold Release is recommended for most applications and is available from Smooth-On or your local distributor. The mold should be sprayed with the release agent, brushed over all surface areas and allowed to dry before casting. To ensure thorough coverage, lightly brush the release agent with a soft brush over all surfaces of the model (especially areas of intricate detail). Apply a second thin mist coating and let dry for 15 minutes casting.

Mold Performance & Storage - Fully cured molds are tough, durable and will perform if properly used and stored. The physical life of the mold depends on how you use it (materials cast, frequency, etc.). Casting abrasive materials such as concrete will eventually erode mold detail, while casting non-abrasive materials (wax) will not affect mold detail. Using the right release agent is essential in all cases. Contact Smooth-On to discuss your particular application. Before storing, the mold should be cleaned with a soap solution and wiped fully dry. Two part (or more) molds should be assembled. Molds should be stored on a level surface in a cool, dry environment. Do not stack molds, expose them to moisture or UV light.

The Material Safety Data Sheet (MSDS) for this or any Smooth-On product should be read prior to use and is available upon request from Smooth-On. All Smooth-On products are safe to use if directions are read and followed carefully.

Be careful. Part A is a TDI prepolymer. Vapors, which can be significant if material is heated or sprayed, cause lung damage and sensitization. Use only with adequate ventilation. Contact with skin and eyes may cause severe irritation. Flush eyes with water for 15 minutes and seek immediate medical attention. Remove from skin with waterless hand cleaner followed by soap and water. Prepolymers contain trace amounts of TDI which, if ingested, must be considered a potential carcinogen. Refer to MSDS. Part B is irritating to the eyes and skin. If contaminated, flush eyes with water for 15 minutes and seek immediate medical attention. Remove from skin with soap and water. When mixing with Part A follow precautions for handling isocyanates.

Important: The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.

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