



Rebound® 25

Brushable Silicone Rubber Compound

PRODUCT OVERVIEW

Rebound® 25 is an easy-to-use platinum-cure silicone rubber that self-thickens for making brush-on molds of almost any model. Mixed 1A:1B by volume (no scale necessary), Rebound® 25 can be applied with a brush or spatula to vertical surfaces without sagging and will cure with negligible shrinkage to a soft, flexible rubber (Shore 25A).

Advantages Over Urethane Brush-On Rubber: (a) Rebound® 25 will not stick to most surfaces, so surface preparation is minimal, (b) Two liquids that mix easily together, (c) stands up better to production casting of resins and low-temperature melt metal alloys, (d) cured molds can be removed from a model “like a glove” and (d) has a long library life.

4 thin layers is all that is necessary to make a stretchy, strong and durable production mold for casting wax, gypsum, concrete or resins (urethane, polyester, etc.). And because Rebound® 25 is a platinum silicone, it will last for many years in your mold library. Applications include reproducing sculpture, architectural restoration, making candle molds, casting pewter, etc.

Note: This product will not work with modeling clays containing sulfur.

TECHNICAL OVERVIEW

<i>Product</i>	<i>Shore A Hardness</i>	<i>Mix Ratio By Volume</i>	<i>A+B Mixed Viscosity</i>	<i>Specific Volume</i>	<i>Tear Strength</i>	<i>Elongation at Break</i>
<i>Rebound™ 25</i>	25	1A : 1B	Varies	23.6 cu.in./lb.	102 pli	>690%
~Pot Life: 20 minutes	~Cure Time/Demold: 6 hours	~Color: Orange	~Shrinkage: Negligible	Ultimate Tensile (psi): 515		

Surface Preparation

Preparing To Mix

Measuring

Safety – Use Rebound® in a properly ventilated area (“room size” ventilation). Wear vinyl gloves only. Latex gloves will inhibit the cure of the rubber.

Store & Use At Room Temperature (72°F / 22°C). This material has a limited shelf life and should be used as soon as possible. Warmer temperatures will drastically reduce working time and cure time. Storing material at warmer temperatures will also reduce the usable shelf life of unused material. Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk.

Cure Inhibition – Addition cured silicone rubber may be inhibited by certain contaminants in or on the pattern to be molded resulting in tackiness at the pattern interface or a total lack of cure throughout the mold. Latex, sulfur clays, certain wood surfaces, newly cast polyester, epoxy or urethane rubber may cause inhibition. If compatibility between the rubber and the surface is a concern, a small-scale test is recommended. Apply a small amount of rubber onto a non-critical area of the pattern. Inhibition has occurred if the rubber is gummy or uncured after the recommended cure time has passed. **To prevent inhibition, one or more coatings of a clear acrylic lacquer applied to the model surface is usually effective. Allow any sealer to thoroughly dry before applying rubber. Important: Even with a sealer, Rebound™ 25 will not work with modeling clays containing sulfur. If you are not sure if your clay contains sulfur, do a small compatibility test before using for an important project.**

Applying A Release Agent? – Although not usually necessary, a release agent will make demolding easier when casting into or over most surfaces. Ease Release 200® is a proven release agents for making molds with silicone rubber and is available from Smooth-On or your Smooth-On distributor. **~IMPORTANT:** 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 30 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 before proceeding on a critical project. You can also contact Smooth-On for technical assistance.

Measuring

Mixing

Applying

Curing

Performance

You will need 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. Before you begin, pre-mix Part B (base) thoroughly. After dispensing required amounts of Parts A and B into mixing container (1A:1B by volume or weight), **mix thoroughly for 3 minutes** making sure that you **scrape the sides and bottom of the mixing container several times**. *Rubber should be a uniform color with no color streaks.*

Applying The Rubber . . . This product must be applied in layers. Mold makers generally find that four thin layers (minimum 3/8" thickness) is suitable for a strong, working mold. Using a stiff brush, the first coat of rubber should be applied in a very 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 60 minutes at room temperature until it becomes "tacky"** before adding the next coat. "Tacky" is defined as sticky to the touch, but does not come off onto your gloved finger. Once "tacky", you are ready to apply the next layer. **Tack-time can be reduced with mild heat (hair dryer or heat gun).**

Repeat until the necessary mold thickness is achieved. **Coverage:** 1 gal. unit = 7 ft². (0.65 m²) 5 gal. unit = 35 ft² (3.25 m²)

Note: Although not necessary, **adding a small amount of SILC-PIG® color pigment** to every other mix of rubber will help you distinguish one layer from the next. Ensures that you apply a thorough coating each time and help build uniform layers.

Option: Add Thi-Vex® thickener for greater thixotropy – adding a small amount of Thi-Vex® will thicken the rubber for filling deep undercuts and detail. Amount to add? 1% of the total volume of your mix will increase thixotropy substantially.

Option: Add Silicone Thinner to your initial mix to lower the viscosity of your "print coat".

Apply A Support Shell . . . Once the mold is fully cured, a rigid support shell (mother mold) is necessary to support the rubber mold during casting. Plasti-Paste® is a trowelable plastic is ideal as a mother mold material.

Curing . . . Allow the mold to cure at least 6 hours at room temperature (77°F / 25°C) before demolding. Do not cure rubber where temperature is less than 65°F / 18°C. You can cure the mold faster by applying mild heat (150°F/60°C) for 2 hours.

Casting - Compatibility . . . You can cast many things into Rebound® 25. Low temperature melt metal alloys, gypsum, wax, concrete, etc. are compatible. Aliphatic urethanes (Crystal Clear® & Clear Flex® Urethanes) **will not cure** in Rebound™ 25 molds. If casting platinum silicones into Rebound® 25, use Ease Release® 200 as a separator.

Using The Mold . . . Although not necessary, applying a release agent before casting most materials facilitates demolding and will lengthen the production life of your mold. The type of release agent to use depends on the material being cast. Ease Release® 200 or 205 is recommended for casting resins. In & Out® II works well for releasing gypsum and concrete. Both are available from Smooth-On or your local distributor. **Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.**

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. Storing the mold with a casting in it will maintain dimensional stability. Molds should be stored on a level surface in a cool, dry environment.

Rebound® 25 PART A

CAUTION: In case of eye contact, flush thoroughly with water for 15 minutes. If irritation persists, get medical attention. For skin contact, wash with soap and water. **Keep Out Of Reach Of Children.**

Rebound® 25 PART B

CAUTION: In case of eye contact, flush thoroughly with water for 15 minutes. If irritation persists, get medical attention. For skin contact, wash with soap and water. **Keep Out Of Reach Of Children.**

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.

Call Us Anytime With Questions About Your Application

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