



# 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 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.

## TECHNICAL OVERVIEW

Product	Shore A Hardness	Mix Ratio By Volume	A+B Mixed Viscosity	Specific Volume	Tear Strength	Elongation At Break
Rebound 25	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						

## Start By Preparing Your Model –

**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 / 23°C). 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.

**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. 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. **Note: Even with a sealer, Rebound 25 will not work with modeling clays containing heavy amounts of sulfur. Do a small scale test for compatibility before using on your 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™ or Ease Release 800™ are proven release agents for making molds with silicone rubber. Mann Ease Release™ products are 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. You can also contact Smooth-On for technical assistance.

**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.

**Note:** Although not necessary, **adding a small amount of SILC-PIG<sub>™</sub> 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<sub>™</sub> 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.

**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 or 800 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. **Universal Mold Release** 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.

**SAFETY** - 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. Use in a properly ventilated area ("room size" ventilation). Wear vinyl gloves only. Latex gloves will inhibit the cure of the rubber. Contact with skin and eyes may cause irritation. Flush eyes with soap and water for 15 minutes and seek immediate medical attention. Remove from skin with waterless hand cleaner followed by soap and water.

**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.

Need Technical Help?

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