Mold Max Stroke™

Brushable Tin Catalyzed Silicone Rubber

PRODUCT OVERVIEW

Mold Max Stroke™ is a brushable tin silicone rubber that self-thickens for making fast brush-on molds of almost any model. Properly applied, it will hold a vertical surface and will reproduce the finest detail.

Mixed 100A:10B by weight, rubber quickly develops thixotropy and can be applied with a brush or spatula. Working time is 20 minutes, re-coat time is 45 minutes and cure time after the final layer has been applied is 16 hours at room temperature. Mold Max Stroke™ silicone will not stick to most surfaces and will cure with negligible shrinkage to a strong, flexible Shore 30A rubber.

4 thin layers is all that is necessary to make a strong and durable production mold for casting wax, gypsum, concrete or resins (urethane, polyester, etc.). Applications include reproducing sculpture, architectural restoration, making candle molds, casting pewter, etc.

TECHNICAL OVERVIEW

	Shore A	Mix Ratio By Weight	Color	Specific Volume	Specific Gravity	Viscosity	Die B Tear Strength	Elongation At Break	Tensile Strength	100% Modulus	Shrinkage*
Mold Max Stroke™	30	100A:10B	White	23.5	1.18	Variable	125 pli	300%	577 psi	110 psi	.002 in./in.

***Shrinkage** measured after 24 hours

Model Preparation Cure Inhibition Release Agent?

Safety – Use in a properly ventilated area ("room size" ventilation). Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk. Wear vinyl gloves only as 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. Storing material at warmer temperatures will reduce the usable shelf life of unused material.

Cure Inhibition – 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 my cause inhibition. If compatibility between the rubber and the surface is a concern, a small-scale test is recommended. **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.

Applying A Release Agent? Although not usually necessary, a release agent will make demolding easier when casting into or over most surfaces. Ease Release 200tm 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 Apply A Support Shell

You will need two containers: The first will be used for measuring out Part A and Part B. The second should be large enough to contain amounts of both components and allow thorough mixing. Part A is Mold Max 30 Part A. Before you begin, shake or pre-mix Part B thoroughly. After dispensing required amounts of Parts A and B into mixing container by weight (you must use an accurate gram scale), **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. 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 45 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.
Keep applying layers until desired mold thickness is achieved.

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. It 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 Casting Using The Mold

Curing – Allow the mold to cure at least 16 hours at room temperature (72°F / 22°C) before demolding. Do not cure rubber where temperature is less than 65°F /18°C.

Casting – You can cast low temperature melt metal alloys, gypsum, wax, concrete, Smooth-On liquid plastics, epoxies etc. This product will inhibit the cure of platinum cure silicone rubbers.

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 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 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 First! Safety First! Safety First!

Safety First! 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 only with adequate ventilation. Contact with skin and eyes may cause 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.

Call Us Anytime With Questions About Your Application
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