

3030 SLIDE®

Ultra-Low Surface Tension Platinum Cure Silicone Rubber



www.smooth-on.com

PRODUCT OVERVIEW

3030 SLIDE® is a platinum cure silicone rubber that offers greatly reduced surface tension. Cured silicone slides across itself and different surfaces. Mix ratio is 1:1 by weight or volume. Pot life is 45 minutes and cures in about 16 hours to Shore 00-30. **Silicone surface must be exposed to air for 24 hours to bring out slide effect.**

Cured rubber is very soft, very strong and very “stretchy”, stretching many times its original size without tearing and will rebound to its original form without distortion. **3030 SLIDE®** is water white translucent. **Silicone will yellow.** If yellowing is undesired, adding a Silc Pig pigment to the liquid rubber prior to mixing will color the silicone. You can also add Smooth-On’s Silicone Thinner® to further lower the viscosity.

Due to its ultra-low surface tension, **3030 SLIDE®** is ideal for creating silicone masks, etc. The surface of **3030 SLIDE®** is very low friction, allowing for ease of motion when cast silicone pieces need to glide over surfaces such as skin.

Warning – Allergen; people who are allergic to durian, tree nuts and tree nut derivatives or musk thistle seed should avoid contact with this product.

TECHNICAL OVERVIEW

Mix Ratio: 1A : 1B by weight or volume

Mixed Viscosity, cps: 3,000 (ASTM D-2393)

Specific Gravity, g/cc: 1.07 (ASTM D-1475)

Specific Volume, cu. in./lb.: 26.0 (ASTM D-1475)

Pot Life: 45 minutes (73° F / 23°C) (ASTM D-2471)

Cure time: 16 hours (73° F / 23°C)

Color: Translucent

Shore Hardness: 00-30 (ASTM D-2240)

Tensile Strength, psi: 200 (ASTM D-412)

100% Modulus, psi: 10 (ASTM D-412)

Elongation @ Break: 900% (ASTM D-412)

Die B Tear Strength, pli: 38 (ASTM D-624)

Shrinkage, in./in.: <.001 (ASTM D-2566)

* All values measured after 7 days at 73°F / 23°C

PROCESSING RECOMMENDATIONS

PREPARATION... **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. Latex gloves will inhibit the cure of the rubber.

Store and use material at room temperature (73°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. These products have a limited shelf life and should be used as soon as possible.

Cure Inhibition – Addition-cure silicone rubber may be inhibited by certain contaminants resulting in tackiness at the surface interface or a total lack of cure throughout the casting. Latex, tin-cure silicone, 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. **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.** 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 is usually effective. Allow any sealer to thoroughly dry before applying rubber. Note: Even with a sealer, platinum silicones will not work with modeling clays containing heavy amounts of sulfur.

Applying A Release Agent - Although not usually necessary, a release agent will make demolding easier when pouring over most surfaces. Ease Release® 200 is a proven release agent for use 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.

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.

Keep Out of Reach of Children

BE CAREFUL - Avoid contact with eyes. Silicone polymers are generally non-irritating to the eyes however a slight transient irritation is possible. Flush eyes with water for 15 minutes and seek medical attention. Remove from skin with waterless hand cleaner followed by soap and water. Children should not use this product without adult supervision.

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.

MEASURING & MIXING...

Before you begin, pre-mix Part B 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.** After mixing parts A and B, vacuum degassing is recommended to eliminate any entrapped air. Vacuum material for 2-3 minutes (29 inches of mercury), making sure that you leave enough room in container for product volume expansion.

LOW SURFACE TENSION PROPERTIES...

In order for **3030 SLIDE®** to exhibit its ultra-low surface tension properties, the silicone surface must be **exposed to air for at least 24 hours.** After material cures for 16 hours, **demold immediately** and position the casting in such a way that all surfaces come into contact with air. This will allow the material to develop a very low-friction surface.

ADHESION AND LAMINATION...

Once **3030 SLIDE®** has developed its ultra-low surface tension properties, other platinum silicones (Psycho Paint®, Dragon Skin®, Ecoflex®, etc.) **will not bond to a cured piece.** In order to bond another silicone to a 3030 SLIDE® casting (painting with Psycho Paint®, for example) the new silicone **must be applied before the 3030 SLIDE® develops its low-friction surface.**

Use As a Mold Material - **3030 SLIDE® is adhesive when casting urethane resins and other materials.** If you use 3030 SLIDE® as a mold material, applying Ease Release 200 is necessary.

POURING, CURING & MATERIAL PERFORMANCE...

For best results, pour your mixture in a single spot at the lowest point of the mold. Let the rubber seek its level. **A uniform flow will help minimize entrapped air.**

Curing - Allow rubber to cure as prescribed at room temperature (73°F/23°C) before demolding. Do not cure rubber where temperature is less than 65°F/18°C.

Material Performance & Storage - The physical life of a cured silicone piece depends on how you use it. Cured platinum silicone has a very long 'library life' in general, but applications involving extreme stretch, puncturing, or exposure to harsh chemicals will reduce this material's usable life. 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.

WARNING - ALLERGEN...

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Call Us Anytime With Questions About Your Application.

Toll-free: (800) 762-0744 Fax: (610) 252-6200

The new www.smooth-on.com is loaded with information about mold making, casting and more.