



EZ~Spray® Silicone

Sprayable Silicone Rubber Compound

PRODUCT OVERVIEW

EZ~Spray® Silicone is a platinum cure silicone rubber developed specifically for spraying through the EZ~Spray® Junior Cartridge System. With no or minimal surface preparation, **EZ~Spray® Silicone** can be sprayed onto vertical surfaces for making fast rubber molds of large surface areas. After a suitable thickness is attained, **EZ~Spray® Silicone** cures in 1 hour with negligible shrinkage to a durable mold rubber good for production casting resins, foams, concrete, plaster and other materials.

Application of a support shell is achieved by spraying *Smooth-On's EZ~Spray® Plastic* over the rubber mold after it has fully cured. Read the EZ~Spray® Junior manual prior to spraying.

TECHNICAL OVERVIEW

Key Values: ~Mixing Ratio: One to One by volume ~Shore A Hardness: 35
 ~Pot Life: 1.5 minutes ~Cure Time/Demold: 1 hour ~Color: Purple

Description: EZ~Spray® Silicone consists of two components, Part A and Part B. When combined in a mix ratio of one to one by volume, EZ~Spray® Silicone self-thickens and cures to a rubber that makes an excellent mold for casting a variety of materials.

Properties	Viscosity	G/CC	Cu.In./Lb.	Mix Ratio	
Part A	19,000				
Part B	15,000				
Mixed A+B	varies	17,000	1.2	24.1	
				1 : 1 by volume	
Elongation at Break	415%	Die B Tear Strength	100 pli	100% Modulus	115 psi
Ultimate Tensile	490 psi			Shrinkage	Negligible

Start By Preparing Your Model –

Preparing To Spray . . . Materials should be stored and used at room temperature warm environment (72° F / 22° C). This product has a limited shelf life and must be used as soon as possible. Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk. Model surface should also be at room temperature. **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.**

Inhibition . . . Platinum silicones are especially susceptible to inhibition by a variety of contaminants (such as sulfur-based clays) resulting in tackiness at the pattern interface or a total lack of cure. 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.

Applying A Sealer / Release Agent . . . To prevent inhibition, a “barrier coat” of clear acrylic lacquer sprayed directly onto the pattern is usually effective. Allow to thoroughly dry. Although not usually necessary, a release agent will make demolding easier when casting into or over most surfaces. Ease Release® 200 is suitable for releasing silicone from silicone. Mann Ease Release® products are available from Smooth-On or your Smooth-On distributor. If casting silicone into silicone, use Ease Release 200® only.

***Do Not Attempt To Spray Rubber Or Plastic Without First
Reading The EZ~Spray® Junior Manual!***

Safety . . . Spraying should be done in a well-ventilated area. **Breathing protection:** Everyone in the spray area should wear an independent air supplied hood or NIOSH approved breathing mask. You should also wear **vinyl** gloves and long sleeve garments to minimize skin contact.

Applying

Curing

Applying A Support Shell

After Material Cartridge Is Loaded & Prepared . . . depress trigger and begin spraying.

Applying The Rubber . . . This product must be sprayed in layers. Generally, 2 - 4 layers (minimum 3/8"-1/2" or 1 cm thickness) is suitable for a working mold. The first layer, the detail coat, is a thin layer to capture model detail. Subsequent coats will add strength to the mold. Spray undercuts and recesses first. Have an extra pair of hands to brush rubber as it is applied. Let the first coat dry for two 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.

Curing . . . Allow the mold to cure for one hour 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 – 145°F/60°C for 4 – 6 hours) will increase physical properties and performance significantly.

Apply Support Shell . . . After all layers of rubber fully cure (1 hour) a support shell should be applied over the rubber mold to prevent the mold from distorting when casting into it. Use *Smooth-On's EZ~Spray® Plastic* to spray on a hard, durable and lightweight plastic shell. Follow directions given in the EZ~Spray® Junior manual.

Using The Mold

Mold Performance

Using The Mold . . . A release agent is not necessary; however using a release agent prior to casting lengthens the production life of any rubber mold. The type of release agent to use depends on the material being cast. Universal® Mold Release is good for releasing resins recommended for most applications and is available from Smooth-On or your local distributor. In & Out® II concrete release agent releases concrete castings.

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. **Breathing protection:** Everyone in the spray area should wear an independent air supplied hood or NIOSH approved breathing mask. You should also wear **vinyl** gloves and long sleeve garments to minimize skin contact.

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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