

# Equinox™ Series

## Mix & Apply-By-Hand Platinum Mold Putty



www.smooth-on.com

### PRODUCT OVERVIEW

Equinox™ Silicone Putty Products are new silicone compounds (platinum catalyst) that can be easily mixed and applied by hand to a variety of surfaces. Equinox™ Putty is mixed in equal amounts (1A:1B) by volume.

Equinox™ 35 has a pot life of about 1 minute with a cure time of about 7 minutes at room temperature (73°F/23°C). Equinox™ 38 has a pot life of 4 minutes with a cure time of 30 minutes and Equinox™ 40 is a slower version with a 30 minute pot life and 5 hour demold time. Shrinkage is low and cured rubber is exceptionally strong (very high tensile strength), durable and will resist high temperatures (for casting low-temperature melt metal alloys). They also resist cure inhibition. Equinox™ Silicones are also FOOD SAFE and can be used for culinary applications. (See separate technical bulletin for usage instructions available at www.smooth-on.com).

#### Three Hardnesses/Speeds To Choose From:

- Equinox™ 35 FAST – Shore 35A
- Equinox™ 38 MEDIUM – Shore 38A
- Equinox™ 40 SLOW – Shore 40A

Applications include making fast mold impressions from almost any surface, orthotics / orthopedic, equine hoof repair, jewelry making and more.

### TECHNICAL OVERVIEW

	Mixed Viscosity (ASTM D-2393)	Specific Gravity (g/cc) (ASTM D-1475)	Specific Volume (cu. in./lb.) (ASTM D-1475)	Pot Life (ASTM D-2471)	Cure Time	Shore A Hardness (ASTM D-2240)	Tensile Strength (ASTM D-412)	100% Modulus (ASTM D-412)	Elongation at Break % (ASTM D-412)	Die B Tear Strength (ASTM D-624)	Shrinkage (in./in.) (ASTM D-2566)
Equinox™ 35 - FAST	Putty	1.25	22.2	1 min.	7 min.	35A	520 psi	119 psi	430%	140 pli	.001 in./in.
Equinox™ 38 - MEDIUM	Putty	1.25	22.2	4 min.	30 min.	38A	520 psi	119 psi	430%	140 pli	.001 in./in.
Equinox™ 40 - SLOW	Putty	1.25	22.2	30 min.	5 hours	40A	520 psi	119 psi	430%	140 pli	.001 in./in.

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

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

**Color:** Light Purple

### 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 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, 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. 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.

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.

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, platinum silicones will not work with modeling clays containing heavy amounts of sulfur. Do a small scale test for compatibility before using on your project.

## 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.** 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.

**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.

## APPLYING A RELEASE AGENT...

Although not usually necessary, a release agent will make demolding easier when applying over most surfaces. Ease Release™ 200 is a proven release agent 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.

## MEASURING & MIXING...

This product is mixed by hand. If you choose to wear gloves, wear vinyl gloves only. Latex gloves will inhibit the cure of the rubber.

**Measuring** - Equinox™ Series Putty comes as two parts. Dispense equal amounts (golf ball size, for example) of Part A and Part B. These products have a limited shelf life and should be used as soon as possible.

**Mixing** - Knead parts together aggressively to a uniform color and apply quickly. Fast putty begins to cure after 30 seconds. Medium begins to cure after 4 minutes. Slower Equinox™ 40 gives you about 30 minutes to mix and apply.

## APPLYING, CURING & MOLD PERFORMANCE...

**Applying** - Putty can be applied directly to almost any model surface (see preparation above).

**Curing** - Allow the rubber to cure at room temperature (73°F/23°C) before removing from model surface. Applying heat (heat gun, hair dryer, heat lamp, etc.) will cause the rubber to cure faster. 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.

**Applying a Support Shell** - Usually, Putty molds will be too thin to support

themselves during casting. A support shell made of Plasti-Paste II™ or Matrix™ NEO™ and chopped fiber can be applied over the mold surface.

**Curing / Post 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. **Optional:** Post curing the mold will aid in quickly attaining maximum physical and performance properties. After curing at room temperature, expose the rubber to 176°F/80°C for 2 hours and 212°F/100°C for one hour. Allow mold to cool to room temperature before using.

**Using The Mold** - When first cast, silicone rubber molds exhibit natural release characteristics. Depending on what is being cast into the mold, mold lubricity may be depleted over time and parts will begin to stick. No release agent is necessary when casting wax or gypsum. Applying a release agent such as Ease Release™ 200 (available from Smooth-On) prior to casting polyurethane, polyester and epoxy resins is recommended to prevent mold degradation.

**Mold Performance & Storage** - The physical life of the mold depends on how you use it (materials cast, frequency, etc.). Casting abrasive materials such as concrete can quickly erode mold detail, while casting non-abrasive materials (wax) will not affect mold detail. 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.



**Call Us Anytime With Questions About Your Application.**

**Toll-free: (800) 381-1733 Fax: (610) 252-6200**

The new [www.smooth-on.com](http://www.smooth-on.com) is loaded with information about mold making, casting and more.