

# Ecoflex™ GEL

Platinum Cure Silicone Rubber For Special Effects



www.smooth-on.com

Certified Skin Safe!

## PRODUCT OVERVIEW

Ecoflex™ GEL is an extremely soft, platinum silicone rubber gel specifically designed for creating silicone makeup appliances, for cushioning, creating gaskets, encapsulation, and other applications requiring a very soft silicone material.

Ecoflex™ GEL has a Shore hardness of 000-35, this is below the Shore 00 hardness scale. Because Ecoflex™ GEL is so soft, it works very well as a silicone gel for filling encapsulated silicone makeup appliances and prosthetics. An infinite number of color effects can be achieved by adding Silc Pig™ silicone pigments.

**Certified Skin Safe** - Material is skin safe and certified by an independent laboratory. As Ecoflex™ GEL is very tacky when cured, in some situations, it is recommended that Ecoflex™ GEL be encapsulated with another non-tacky platinum silicone such as Dragon Skin™ FX Pro™, or another suitable membrane. Ecoflex™ GEL is mixed 1A:1B by weight or volume. Rubber cures at room temperature (73°F/23°C) with negligible shrinkage.

## TECHNICAL OVERVIEW

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

Mixed Viscosity, cps: 9300 (ASTM D-2393)

Specific Gravity, g/cc: 0.98 (ASTM D-1475)

Specific Volume, cu. in./lb.: 28.0 (ASTM D-1475)

Pot Life: 15 minutes (73° F / 23°C) (ASTM D-2471)

Cure time: 2 hours (73° F / 23°C)

Color: Translucent

Shore Hardness: 000-35 (ASTM D-2240)

Elongation @ Break: >1000% (ASTM D-412)

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

Refractive Index: 1.40451 at 68°F / 20°C

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

## PROCESSING RECOMMENDATIONS

### PREPARATION...

**Preparation** - Materials should be stored in and used at room temperature (73°F/23°C). These products have a limited shelf life and should be used as soon as possible. Rubber may be inhibited by sulfur based clays resulting in tackiness at the surface interface or a total lack of cure throughout the mold.

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. Inhibition has occurred if the rubber is gummy or uncured after the recommended cure time has passed.

### USING ECOFLEX™ GEL FOR MAKING SILICONE PROSTHETIC MAKEUP APPLIANCES...

Ecoflex™ GEL can be used as a gel filler for creating silicone prosthetic appliances. In most cases, Ecoflex™ GEL should be encapsulated. For example, Dragon Skin™ FX-Pro™ can be stippled onto a mold surface (e.g. Shell Shock™ released with Ease Release™ 200) to create a membrane. Ecoflex™ GEL can then be poured or injected into the mold to create a soft gel prosthetic encapsulated with strong, non-tacky Dragon Skin™ FX-Pro™ silicone.

**Applying a Release Agent** - Although not always necessary, a release agent will make demolding easier when casting into most surfaces. Ease Release™ 200 available from Smooth-On is a proven release agent for releasing silicone from silicone or other surfaces. **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.

## 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** making sure that you **scrape the sides and bottom of the mixing container** several times. For best results, 'double mix' the material by pouring the mixture into a new container, then continuing to mix until material is thoroughly blended. Mixing containers should have straight sides and a flat bottom. Mixing sticks should be flat and stiff with defined edges for scraping the sides and bottom of your mixing container.

## **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.

## **POURING & CURING**

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

**Curing** - Allow rubber to cure for 2 hours at room temperature (73°F/23°C) before demolding. Time to demold can be reduced with mild heat. Do not cure rubber where temperature is less than 65°F/18°C.



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

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

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