

PlatSil® SiliFoam

Technical Bulletin

DESCRIPTION: PlatSil® SiliFoam is a two-part, platinum-cured silicone system with a 1A:1B mix ratio by volume. After mixing Part A and Part B, SiliFoam has a one-minute working time and then cures to a flexible foam with a free-rise density of 15 lb/ft3 in 30 minutes. SiliFoam can be used for many applications, but is often used in conjunction with PlatSil® Gel Silicone Rubbers to create prosthetic appliances. The weight of large prosthetic appliances can be reduced by back-filling surface layers of PlatSil® Gels with low-density SiliFoam.

BEFORE USE: Thoroughly read Safety Data Sheets, product labels and the "SAFETY" section in this Technical Bulletin.

MODEL PREPARATION: If the cured SiliFoam is intended to be removed from the model and the model is made of a porous material (e.g., wood or plaster), then the model must be sealed before applying SiliFoam. Seal porous models with wax, petroleum jelly, PVA, lacquer or paint to prevent penetration of the foam into the pores of the material. Some non-porous surfaces (e.g., metals and glass) that contact the liquid silicone should be coated lightly with Pol-Ease® 2350 Release Agent or sprayed with Pol-Ease® 2500 Release Agent. Pol-Ease 2350 is both a sealer and release agent and must be allowed to dry before applying liquid silicone. Pol-Ease 2500 is an aerosol spray and does not need to dry before applying liquid silicone. If SiliFoam is to be poured against a silicone rubber surface and intended to be removed later, then Pol-Ease 2500 Release Agent must be applied to the surface before applying SiliFoam or the SiliFoam may bond to the silicone rubber. If there is any question about the release properties of PlatSil SiliFoam against a certain material, perform a small test cure on an identical surface. Do not use silicone-based release agents (e.g., Pol-Ease® 2300 Release Agent) on surfaces that contact liquid SiliFoam since inhibition and/or adhesion may occur.

For prosthetic appliances in which SiliFoam is intended to bond to PlatSil® Gels or other platinum silicone rubbers, apply uncured SiliFoam to the silicone rubber layer within 5 to 10 minutes after the rubber layer sets. Do not allow the silicone rubber to fully set, as the bond between the rubber and foam may be weak.

CURE INHIBITION: CAUTION! Contamination from amines, sulfur, tin compounds, polyester resins, some paints and some silicone rubbers may inhibit surface cure. Modeling clays containing sulfur are one example. If there is any question about the compatibility between the foam and the prepared model surface, perform a test cure on an identical surface to determine that complete curing and good release are obtained.

PHYSICAL PROPERTIES	
Product	PlatSil® SiliFoam
Mix Ratio By Volume or Weight	1A:1B
Mix Viscosity (cP)	7,500
Cream Time	30-45 sec.
Rise Time	4 min.
Tack-Free Time	ND
Demold Time	30 min.
Free-Rise Density (lb/ft ³)	15
Molded Density (lb/ft³)	ND

PRODUCT LINE FEATURES

- Soft, translucent, silicone foam
- Fast, 30-minute demold time with a one-minute working time
 - Bonds to PlatSil® Gels to make lightweight appliances
- More dense than Polytek® Polyurethane PolyFoam at 15 lb/ft3

MIXING AND CURING: Before use, be sure that Parts A and B are at room temperature and that all tools are ready. Surface and air temperatures should be above 60°F during application and for the entire curing period.

Carefully measure equal volumes of Parts A and B into a clean container. Then, mix thoroughly, scraping sides and bottom of the container. Mixes gel in approximately one minute at room temperature. The cure time will be faster in warm environments and slower in cooler environments. After mixing, quickly pour/apply the mixture into/onto the intended model, mold or prosthetic appliance.

MAKING THEATRICAL PROSTHETIC APPLIANCES: PlatSil® Gels (i.e., PlatSil Gel-OO, Gel-10 & Gel-25) are often used to make prosthetics and simulated tissue/skin applications. See the PlatSil Gel Technical Bulletin for details. PlatSil SiliFoam can be used in conjunction with PlatSil Gels to reduce the weight of larger appliances without sacrificing the inherent look and feel of a high quality, life-like PlatSil Gel system.

COLORING: Silicone Color Pigments can be added to color SiliFoam. Add up to 1% of the total mixed weight to Part B prior to mixing with Part A.

SHELF LIFE: For best results, store products in unopened containers at room temperature (60-90°F). Use products within six months. Tightly reseal containers after use.

CLEAN UP: Tools should be wiped clean before the rubber cures. Denatured ethanol is a good cleaning solvent, but it must be handled with extreme caution owing to its flammability and health hazards.

SAFETY: Before use, thoroughly read Safety Data Sheets and product labels. Follow safety precautions and directions.

Part A: Keep out of reach of children. Use with adequate general or local exhaust ventilation to minimize exposure levels. If needed, a NIOSH-approved respirator with organic vapor cartridge may be used. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Wear impervious gloves, such as butyl rubber or nitrile rubber. Wash skin thoroughly with soap and water after handling. Wear eye protection, such as chemical safety glasses/googles. If in eyes, rinse cautiously with water for several minutes, removing contact lenses if present and easy to do.

Part B: Keep out of reach of children. Use with adequate general or local exhaust ventilation to minimize exposure levels. If needed, a NIOSH-approved respirator with organic vapor cartridge may be used. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Wear impervious gloves, such as butyl rubber or nitrile rubber. Wash skin thoroughly with soap and water after handling. Wear eye protection, such as chemical safety glasses/googles. If in eyes, rinse



cautiously with water for several minutes, removing contact lenses if present and easy to do.

DISCLAIMER: The information in this bulletin and otherwise provided by Polytek® Development Corp. is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained by the use thereof, or that any such use will not infringe any patent. Before using, the user shall determine the suitability of the product for the intended use and user assumes all risk and liability whatsoever in connection therewith.

ACCESSORIES

Sealers & Release Agents

Pol-Ease® 2350 Sealer & Release Agent Pol-Ease® 2500 Release Agent PolyCoat Sealer & Release Agent Poly PVA Solution (Green or Clear)

Colors

Silicone Color Pigments (Black - Blue - Fleshtone - Green - Red - White - Yellow)