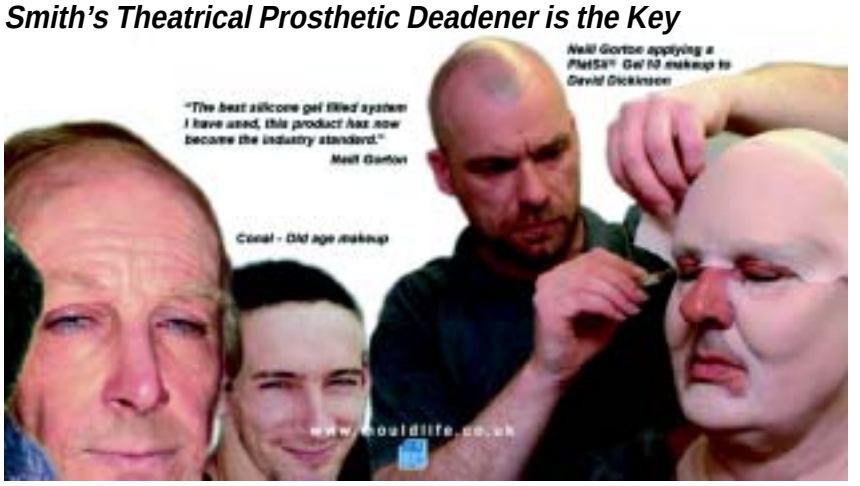
Super Special-Effects Silicone

Smith's Theatrical Prosthetic Deadener is the Key



Gordon Smith, one of the leading make-up artists in the movie and entertainment industry, has spent a substantial portion of his career pioneering the use of silicone rubbers as theatrical prosthetic appliances.

Gordon remembers being challenged by effects guru Dick Smith (no relation) to perfect a translucent silicone gel–filled appliance, a challenge he now feels has been met.

For those of you who don't follow this jargon, a theatrical prosthetic appliance is generally a thin artificial body part that can be applied to an actor/actress to temporarily change their appearance. For example, a movie may require an actor to appear old and wrinkly or to look like a scary creature. To accomplish this, a mold of the actor's face (or other body part) is made, followed by a casting, which in turn is sculpted to look like the new, desired face. A mold is then made of this new face and the two molds (the original face and the face with the sculpted modifications) are essentially put together (we're leaving out a couple steps here for simplicity); then, silicone rubber is injected in the space between. The silicone casting is the "prosthetic appliance" which is put on the actor to achieve the modified appearance.

Silicone appliances are not new. They have been used for some time but have many complications which PlatSil® Gel-10 and new Smith's Theatrical Prosthetic Deadener have overcome. In the past, silicones were softened with silicone fluid to make them soft enough to mimic skin. There were problems with this approach. The silicone fluid would ooze from the silicone appliance and make it difficult to adhere to the actor, silicone fluid being a super slippery release agent. It was difficult to paint. And when softened with fluid, the result was still a springy, rubbery surface, not a "dead," or slow-to-recover, system that acted like real human tissue when stretched.

The solution? Smith's Deadener, a collaborative development between the technical expertise of Gordon Smith and the formulation expertise of Polytek®. This additive has been designed specifically to soften PlatSil® Gel 10 without leaching out like silicone fluid. It also makes the rubber feel "dead" and slow to recover when stretched. This is important, since the perfect prosthetic appliance needs to move just like real, underlying tissue or it will be visible when the actor talks or moves.

PlatSil® Gel-10 can be used alone to make a Shore A~10 appliance or can be softened and deadened with Smith's Deadener to make parts as soft as a Shore OO-20 (this requires adding up to 250% Deadener by weight of PlatSil® Gel-10). Highly deadened Gel-10 appliances are sticky, so they can be placed directly onto the actor without using an adhesive. When the makeup artist is finished for the day with the appliance, it can be easily removed from the actor and reapplied again and again as needed! The tack can be easily removed with talc powder put onto the outside of the appliance. For any makeup artist, PlatSil® Gel and its additives are a must-try.

Together, PlatSil® Gel-10 and Smith's Theatrical Prosthetic Deadener are more versatile and easier to use than any other theatrical appliance system available. It is likely you have seen PlatSil® Gel-10 more than you realize; it was used in films such as *Platoon*, *Born on the Fourth of July*, *X-Men*, the Harry Potter movies, and many more.

There is excellent information about its use on Gordon Smith's website at www.fxsmith.com. Thanks, Gordon, for a truly novel development!

Polytek® Helps Ford Motor Sell the New Mustang

Studio One of Battle Creek, MI, made stands for the information kiosks (above left) at Ford Motor Co. using new EasyFlo™ 120 rotocastable liquid polyurethane plastic. EasyFlo™ 120 was chosen because of its high impact strength and durability, a must in a consumer display environment. Blanket molds made from Polytek®'s TinSil® 70-30 silicone mold rubber (right) were used to rotocast all of these plastic stands.

PlatSil® SiliGlass™—"Silly Glass"

Make Glass Objects That Break Without the Ouch

The name just about tells all. PlatSil® SiliGlass™ is a clear-as-glass silicone rubber that is designed to break and shatter just like real glass without the hazards of being cut. SiliGlass™ is ideal for props and displays that need to be broken in action or displayed as if they are glass fragments. Our unofficial poll has unanimously indicated that actors and stuntmen prefer to jump through or fall into silicone "glass" as opposed to the real thing—go figure!

SiliGlass™ can also be used for simulating water (such as for filling flower vases with faux water that won't spill) and for encapsulating an object for display purposes that otherwise couldn't be covered in a clear resin. PlatSil® SiliGlass™ cures at room temperature with no exotherm and is not moisture sensitive like clear polyurethane resins, which may foam and bubble around imperfectly sealed items. PlatSil® SiliGlass™ is a super-low-viscosity 200-cP, 1A:1B mix that has a 15-minute pot life and a 1-hour demold at Shore A~10 and a 2-hour final hardness of A~40. Demolding is recommended at 1 hour since the rubber will not be completely cross-linked to its final, brittle state and will therefore allowing greater likelihood of demolding the casting without damage.

PlatSil® SiliGlass™ crumbles easily to create perfect glass-like shards and crystals. It is used for special effects where real glass would endanger an actor or for props and displays that need to simulate glass fragments. Encapsulate objects for viewing or for safety; simulate water in flower vases, too!

Since SiliGlass™ has been formulated to break and crumble easily, it is not recommended as a mold rubber. Polytek® does, however, have several clear rubbers for molding applications, such as PlatSil® 71-40 silicone, new Poly ClearCut 45 and GlassRub 50 (featured on page 4), and Poly 74-30 Clear.

For more on these applications or to learn more about PlatSil® SiliGlass™, don't be silly, just give us a call for more information or to try a low-cost, freight-free Trial Unit for as little as $28.

Poly Fiber II

Finally, One Thickener for Both PU Rubbers & Plastics

Poly Fiber II is the latest and greatest in thickeners/thixotropes for turning pourable polyurethane rubbers and plastics into brushable/trowelable systems.

Poly Fiber II has the benefit of being able to thicken both polyurethane rubbers and plastics. Until now, Cab-O-Sil® has been the thickener of choice for most rubbers such as Poly 74-Series products. Since Cab-O-Sil® is so light, it takes great care to mix in without getting too much airborne. Poly Fiber II is easier to mix in and is far less likely to "float" out of your cup. In addition, Poly Fiber II strengthens the rubber, whereas Cab-O-Sil® is neutral in this regard. Poly Fiber II can also be used for thickening plastics such as Poly 15-6 and 1512X when making lightweight plastic mother molds/shells.

Easier to use and more cost-effective than other thickeners, Poly Fiber II is a must-try.

TinSil® Gel-10

TinSil® Gel-10 is a milky, translucent version of our popular Shore A~10 TinSil® 70-10. TinSil® Gel-10 is designed for creating animatronic or faux skins that will be used for displays, creatures, mannequins, etc., but not on the human body. For making prosthetic appliances to put on top of human skin, we suggest PlatSil® Gel-10 and Smith's Theatrical Prosthetic Deadener (see article this page).

Its low viscosity and long working time make it ideal for thin pours. It can be thickened for brushable applications with TinThix liquid additive, thinned further or softened with PolySil® fluid, and accelerated with TinSil® FastCat. It can be colored with silicone pigments, flocking, etc., to achieve the appearance of human or "creature" tissue. Color additives are available from FXSmith Inc. (www.fxsmith.com), SiliClone Studio (610-933-7543), and others.

More information and Trial Units are available through a call to Polytek®'s Customer Service Department.

Tailor Your Own EFX Rubber with 1:1 Mix PlatSil® Gel-10

New PlatSil® Gel-10 allows you to formulate your own soft silicone from the basic Shore A~10 hardness rubber.
PlatSil® Gel-10 is colorless, translucent, and rapid-curing, with surprising tear strength.

- 1:1 Mix by Weight or Volume
- 6-Minute Work Time and 30-Minute Demold
- Retard the Cure with PlatSil® Retarder
- Soften the Rubber with New Smith's Theatrical Prosthetic Deadener
- Thicken to a Light Paste with PlatThix
- Color to Any Shade Easily
- Bond the Rubber to Poly Plastics as Flesh to Bones, or…
- Bond Liquid Poly Plastics to PlatSil® Gel-10 Rubber

NEW! FAST SET! THINK OF THE POSSIBILITIES!