



TECHNICAL DATA SHEET

Product Name PlatSil® Gel-10

Product Description

PlatSil Gel-10 is a 1A:1B (by weight or volume) platinum silicone with a 5-6 minute working time that cures in 30 minutes to a Shore ~ A10 hardness. Use PlatSil Gel-10 as a mould rubber, for prosthetic appliances, and for lifecasting.

Features include:

- Soft (~A10), translucent, silicone rubber
- Add "Deadener" to create ultra-realistic prosthetic appliances
- Fast 30 minute demould with 6 minute working time
- PlatSil® 71R Retarder slows the cure
- PlatSil® 71/73X Accelerator speeds the cure
- PlatThix thickens the mix to a brushable paste

Accessories are available to achieve the following:

- Increase working time
- Accelerate cure time
- Thicken the mix for brushing/layering
- Thin the mix for easier pouring or for softening
- "Deaden" the rubber to soften and eliminate the snappy, synthetic look and feel of ordinary silicone rubbers

Deadened PlatSil Gel-10 can be made to look, feel and move like all types of living tissue. Unlike silicone fluid, Smith's Theatrical Prosthetic Deadener does not leach from the cured rubber/appliance, so bonding and use are far easier.

Physical Properties

| | | |
|---------------------|-----------|------------|
| Mix ratio | by weight | 1A:1B |
| Hardness | Shore A | 10 ± 2 |
| Pour time | minimum | 6 minutes |
| Demould time | @ 25°C | 30 minutes |
| Colour | | Colourless |
| Viscosity | mixed | 15,000 cP |
| Specific Gravity | @ 25°C | 1.10 |
| Shrinkage upon cure | | Nil |

Making Theatrical Prosthetic Appliances

For the purpose of prosthetic and simulated tissue/skin applications, use PlatSil Gel -10 alone or with Smith's Theatrical Prosthetic Deadener to soften the cured rubber. As much as 250% by weight Deadener can be added to the total mixed weight of PlatSil Gel-10 to create a super-gel. Over 30% Deadener will result in a non-paintable, sticky cured gel. The stickiness can be eliminated with powder or by painting a thin barrier coat of straight PlatSil Gel-10 over the sticky surface. PlatSil Gel-10 applied as a barrier perfectly mimics the surface tension of skin. Once powdered, the stickiness cannot be brought back.

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PlatSil Gel-10 can be stippled lightly onto a mould surface (i.e. a fiberglass mould released with Pol-Ease 2350 allowed to dry) then can be layered with subsequent coats of PlatSil Gel-10 with varying amounts of Deadener or the Deadened mix can be injected by syringe into the mould cavity to create the exact dimensions of the appliance. Both methods can create ultra-thin edges that are easily feathered away when applied to the subject.

The sticky back surface of the prosthetic permits direct, adhesive free application to the subject. This appliance can be carefully removed, covered with clear, clean plastic wrap and reused when needed. These prosthetics can also be adhered onto the subject by applying a thin layer of straight PlatSil Gel-10.

Accelerating Cure Speed

Mix PlatSil 71/73X into Part B before adding Part A to accelerate gel and cure times.

Adding 4 to 5% 71/73X to the total mix weight reduces working time to 3 minutes with a ~ 10 minute demould. Experiment to determine the best level of 71/73X for the application.

Retarding Cure Speed

Add PlatSil 71R to Part A prior to mixing with Part B to slow the cure yielding longer working total mix (A+B) to roughly double the working time. Add 2% to triple the working time. Add 5% to yield a 60-minute working time with a fast, 120 minute demould time. Never use more than 5%, since the system might not cure at all.

Thickening for Brush On

Thicken PlatSil Gel-10 by adding PlatThix liquid thickener to the mixed Parts A and B. Add 1% PlatThix to the total mix (by weight) for a light-bodied, non sag gel. Add up to 5% for a thicker mix.

Issue Date

16th July 2010

Revision Number

1

Disclaimer

The data presented in this leaflet are in accordance with the present state of our knowledge, and does not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose.

Information from Polytek