

MEDICAL MODELING & SIMULATION

LIFECAST
· BODY SIMULATION ·

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Polytek
Development Corp.

Silicones, Thermoplastic
Elastomers, and Polyurethanes
for Simulating Human Tissue and
Body Parts for Medical and
Surgical Training

Polytek delivers high quality products that enable you to manufacture clinically accurate and durable medical models and body parts.



SAFEGUARD
MEDICAL™

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We partner with you

during your specification process to help you select from our standard products or to develop custom formulas that meet your requirements. We focus on customizable properties such as hardness, cure speed, feel, tack, rebound, and resistance.

Our in-house product development addresses the challenges you face in the manufacture of the most life-like models and body parts.



LIFECAST
BODY SIMULATION™

PlatSil® Silicone Gels

With Polytek's PlatSil® two part Silicone Gels, you can produce incredibly realistic surgical training aids, responsive suture pads, wound care simulation, and other medical simulation tools and models. Realistic feel and colors can be achieved with our proprietary "deadener" products and silicone color pigments.

Our traditional silicone gels below mimic the feel of human tissue. They have fast demold times, low viscosity, and an easy one to one mix ratio.



	PlatSil® Gel-25 Silicone	PlatSil® Gel-10 Silicone	PlatSil® Gel-OO Silicone
Shore Hardness	A25	A10	OO30
Pour Time	5 Minutes	6 Minutes	6 Minutes
Demold Time	60 Minutes	30 Minutes	30 Minutes

Polytek's line of low extractable oil silicones yields a different cured feel than the traditional silicone gels. These silicone gels have an easy one to one mix ratio and fast demold times.

	PlatSil® Gel-OO-D	PlatSil® Gel-10-D
Shore Hardness	OO40	A10
Pour Time	8 Minutes	8 Minutes
Demold Time	30 Minutes	30 Minutes

The FS (Fast Set) PlatSil® Silicones are well suited for production. They have sufficient working times, fast demold times, and an easy one to one mix ratio. These products are used for casting body parts that require a firmer feel and response.

	PlatSil® FS-10	PlatSil® FS-20
Shore Hardness	OO60 / A13	OO66 / A20
Pour Time	8 Minutes	8 Minutes
Demold Time	25 Minutes	25 Minutes

The softest of the PlatSil Silicone Gels with longer working time and longer demold time are below.

	PlatSil® Gel-OO30	PlatSil® Gel-OO20
Shore Hardness	OO30	OO20
Pour Time	45 Minutes	45 Minutes
Demold Time	4 Hours	2 Hours

Deadener for PlatSil® Gels

PlatSil® Deadener LV (Low-Viscosity) and Smith's Theatrical Prosthetic Deadener can be added to soften and eliminate the snappy, synthetic look and feel of ordinary silicone rubbers. "Deadened" PlatSil Gels can be made to look, feel, and move like living tissue. Unlike silicone fluid, Deadener does not leach from the cured rubber/appliance, so bonding and use are far easier



Dermasol Thermoplastic Elastomers

Dermasol is a series of soft, thermoplastic elastomers that feature high elongation properties. Dermasol feels remarkably like human flesh and is especially useful for simulating human tissue and body parts for medical and surgical training. Common end products include medical models, surgical training aides, realistic body parts, and specialty casts.

Product Line Features

- Customizable color (clear, opaque, translucent, custom color matching)
- Customizable durometer (Shore OO20-A25)
- Customizable fragrance



Clear Polyurethanes—Mercury Free

CPD 8003A / 8085B, **CPD 8003A / 8086B**, and **CPD 9135A / 9135B** are two-part polyurethane systems formulated to produce tough, crystal clear prototypes and parts. They offer convenient 1 to 1 mix ratio by weight, a low mixed viscosity, and are easily pigmented..

CPD 8003A / 8085B

- Clear Casting
- Rapid Setting
- 80 Shore D

CPD 8003A / 8086B

- Clear Casting
- Medium Gel Time
- 80 Shore D

CPD 9135A / 9135B

- Flexible Casting
- Clear Casting
- 35 Shore A
- Very Low Viscosity



Polytek is your trusted source for a wide range of material solutions for producing world-class surgical training aids, wound care simulation, and medical simulation models for the healthcare industry.



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Supplying the world's
largest medical modeling
manufacturers since 2000.

About Polytek

Started in 1984, Polytek Development Corporation, is a leading manufacturer of specialty polymers including polyurethane elastomers, casting resins, silicones, epoxies, and latex systems.

Polytek's collective mission is to design and manufacture the highest-performance line of liquid rubbers and related casting products as well as to provide our customers with unmatched, industry-setting technical support and customer service. In doing so, we are committed to helping our customers realize the greatest value from the use of our products and our resources.

In the end, our success is defined by yours.

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