

Surgical Guide

A premium-quality material for printing surgical implant guides

Surgical Guide Resin is designed to print at 100 micron and 50 micron layer line resolutions on Formlabs SLA printers to produce dimensionally accurate dental implant guides and templates.

Surgical guides

Device sizing templates

Pilot drill guides

Drilling templates



FLSGAM01

* Regional availability may vary.

MATERIAL PROPERTIES DATA

Surgical Guide Resin

| | Post-Cured ^{1,2} | Method |
|-------------------|---------------------------|-----------|
| Elongation | 12% | ASTM D638 |
| Flexural Strength | > 102 MPa | ASTM D790 |
| Flexural Modulus | > 2400 MPa | ASTM D790 |

Sterilization Compatibility

| | |
|---------------------|--|
| E-beam | 35 kGy E-beam radiation |
| Ethylene Oxide | 100% Ethylene oxide at 55 °C for 180 minutes |
| Gamma | 29.4 - 31.2 kGy gamma radiation |
| Steam Sterilization | Autoclave at 134 °C for 20 minutes Autoclave at 121 °C for 30 minutes |

Disinfection Compatibility

| | |
|-----------------------|-------------------------------------|
| Chemical Disinfection | 70% Isopropyl Alcohol for 5 minutes |
|-----------------------|-------------------------------------|

For more details on sterilization compatibilities, visit formlabs.com

Surgical Guide Resin is a Class I Medical Device as defined in Article 2 of the Medical Device Regulation 2017/74 (MDR) in the EU and in Section 201(h) of the Federal Food Drug & Cosmetic (FD&C) Act.

Surgical Guide Resin has been evaluated in accordance with ISO 10993-1, Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process, and ISO 7405, Dentistry - Evaluation of biocompatibility of medical devices used in dentistry, and passed the requirements for the following biocompatibility risks:

| ISO Standard | Description ³ |
|-----------------|--------------------------|
| EN ISO 10993-5 | Not cytotoxic |
| EN ISO 10993-10 | Not an irritant |
| EN ISO 10993-10 | Not a sensitizer |

The product was developed and is in compliance with the following ISO Standards:

| ISO Standard | Description |
|--------------|---|
| EN ISO 13485 | Medical Devices – Quality Management Systems – Requirements for Regulatory Purposes |
| EN ISO 14971 | Medical Devices – Application of Risk Management to Medical Devices |

¹ Material properties may vary based on part geometry, print orientation, print settings, temperature, and disinfection or sterilization methods used.

² Data for post-cured samples were measured on Type IV tensile bars printed on a Form 2 printer with 100 µm Surgical Guide Resin settings, washed in a Form Wash for 20 minutes in ≥99% Isopropyl Alcohol, and post-cured at 60°C for 30 minutes in a Form Cure.

³ Surgical Guide Resin was tested at NAMSA World Headquarters, OH, USA.