Surgical Guide Resin Pro

High strength and toughness

Compatible with LCD/DLP
Material certification: FDA/NMPA
Color: transparent

FDA
APPROVED
CE

PioNext
Surgical Guide Resin Pro
PN-SG Pro
Transparent
otopolymer UV Resin
1000g
hake Before Use

Low shrinkage

bio-compatibility

high transparency

high flexibility

cost-effective

high adaptability

smooth surface

high accuracy

Hardness	ASTM D 2240	75-80
Flexural modulus	ASTM D 790	1000-1200 Mpa
Flexural strength	ASTM D 790	>40 Mpa
Tensile modulus	ASTM D 638	230-270 Mpa
Tensile strength	ASTM D 638	>30 Mpa
Elongation at break	ASTM D 638	110-140 %
Impact strength,notched Izod	ASTM D 256	240-300 J/m
Heat deflection temperature	ASTM D 648 @66PSI	60-70 ℃

Cytotoxicity	ISO 10993-5 ●	Allergenicity	ISO 10993-10 ●
High temperature sterilization ●		Irritant	ISO 10993-10 ●

High transparency

High strength, high toughness, high impact strength

Providing a good perspective and operating conditions and greatly contribute to improving the accuracy and safety of surgery.

How the Process Works

Upgrading surgical procedures

Advantages of the Application of Surgical Guides in the Industry
3D printing technology is widely used in surgical guides.

1

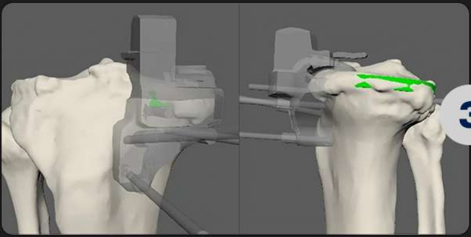
Data collection

Use CT or other imaging equipment to collect detailed data of the patient's surgical area.

2

Preoperative Position Design

Use specialized software to perform virtual design and simulation of the surgical area, determining the optimal surgical position.



3

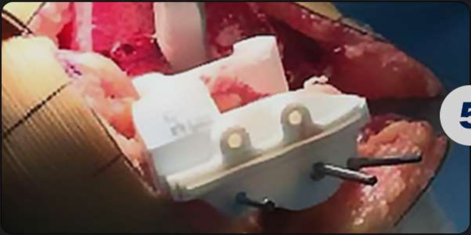
Surgical Guide Design

Based on the preoperative design, use computer-aided design (CAD) software to precisely design the surgical guide.

3D Printing of Surgical Guide

4

Use 3D printing technology to manufacture a high-precision surgical guide.



Intraoperative Surgical Positioning

5

During the surgery, the surgical guide is used to guide and determine the position and angle of the surgical instruments, improving operational accuracy.

Surgical Guide Solutions

MG 01+SG Pro+UV02

Elongation at break **110-140%**
Impact strength, notched Izod **240-300J/m**

10.3" 8K 385nm 3D Printer
MG 01

PIOCREAT
High-speed Curing
UV02
Surgical Guide Pro
SG Pro
ISO
FDA
Surgical Guide Resin Pro

Advantages of digital medical surgical guide applications

3D printing technology is widely used in surgical guides.

Traditional Planting Surgery VS Digital Planting Surgery

1. Accuracy and Predictability:
   - Traditional planting surgery: Relies on the experience and skills of the doctor, with certain limitations in accuracy and predictability.
   - Digital planting surgery: Provides higher accuracy and predictability through precise digital design and fabrication.

2. Safety and Surgical Risks:
   - Traditional planting surgery: Higher surgical risks, with potential risks of inaccurate positioning of surgical instruments

and implants.

- Digital planting surgery: Reduces surgical risks and complications through precise positioning and fixation using surgical guides.

3. Surgical Time and Efficiency:

- Traditional planting surgery: Longer surgical time, requiring manual adjustments and adaptations by the doctor.
- Digital planting surgery: Shorter surgical time, as personalized customization and adaptation of surgical guides can improve surgical efficiency.

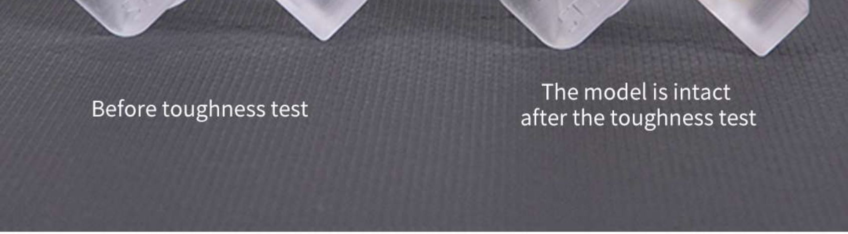
Toughness test

Ensure surgical safety

It deforms without breaking when subjected to external force.
Improve the accuracy and safety of surgery.

Impact strength,notched Izod

240-300 J/m

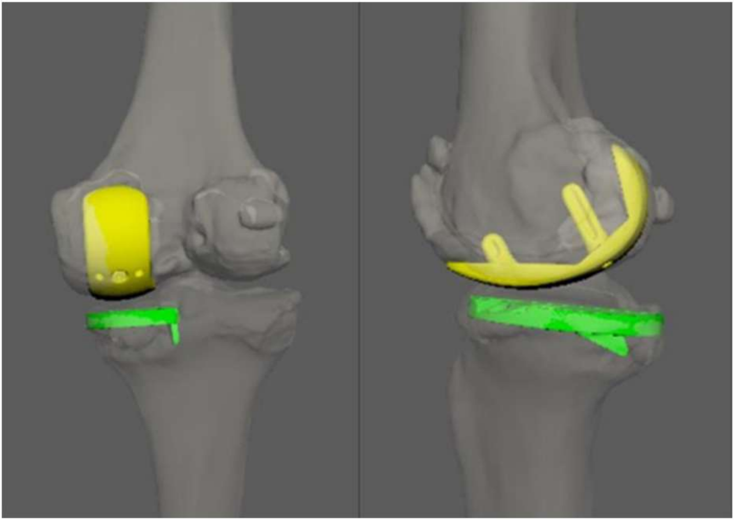
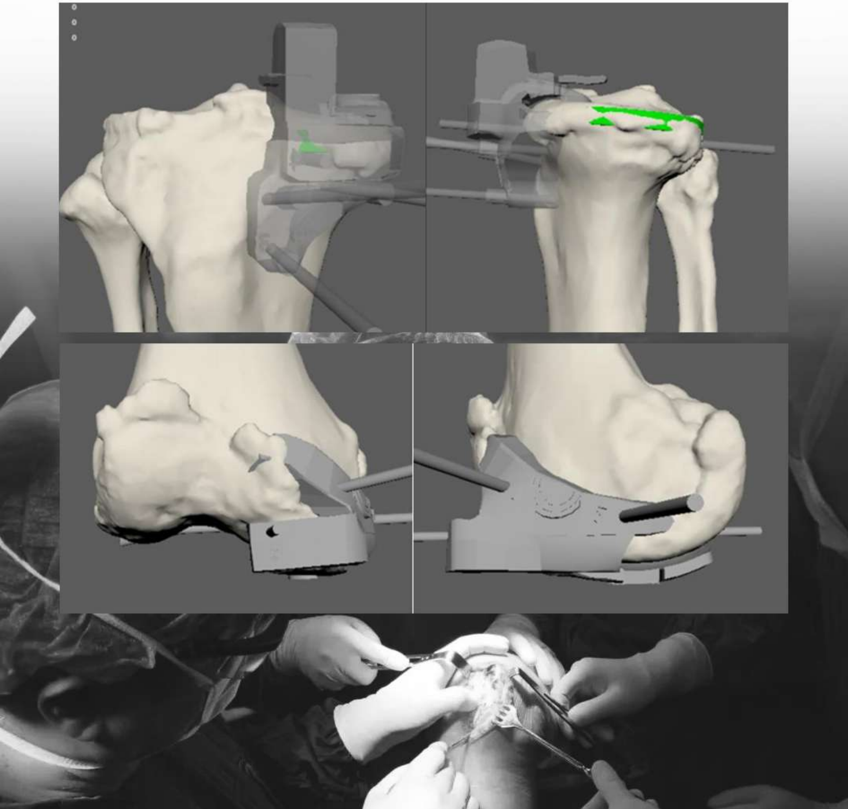


Before toughness test

The model is intact after the toughness test

Applications

Surgical guide

Suitable for orthopedic surgical guides and other related medical applications.