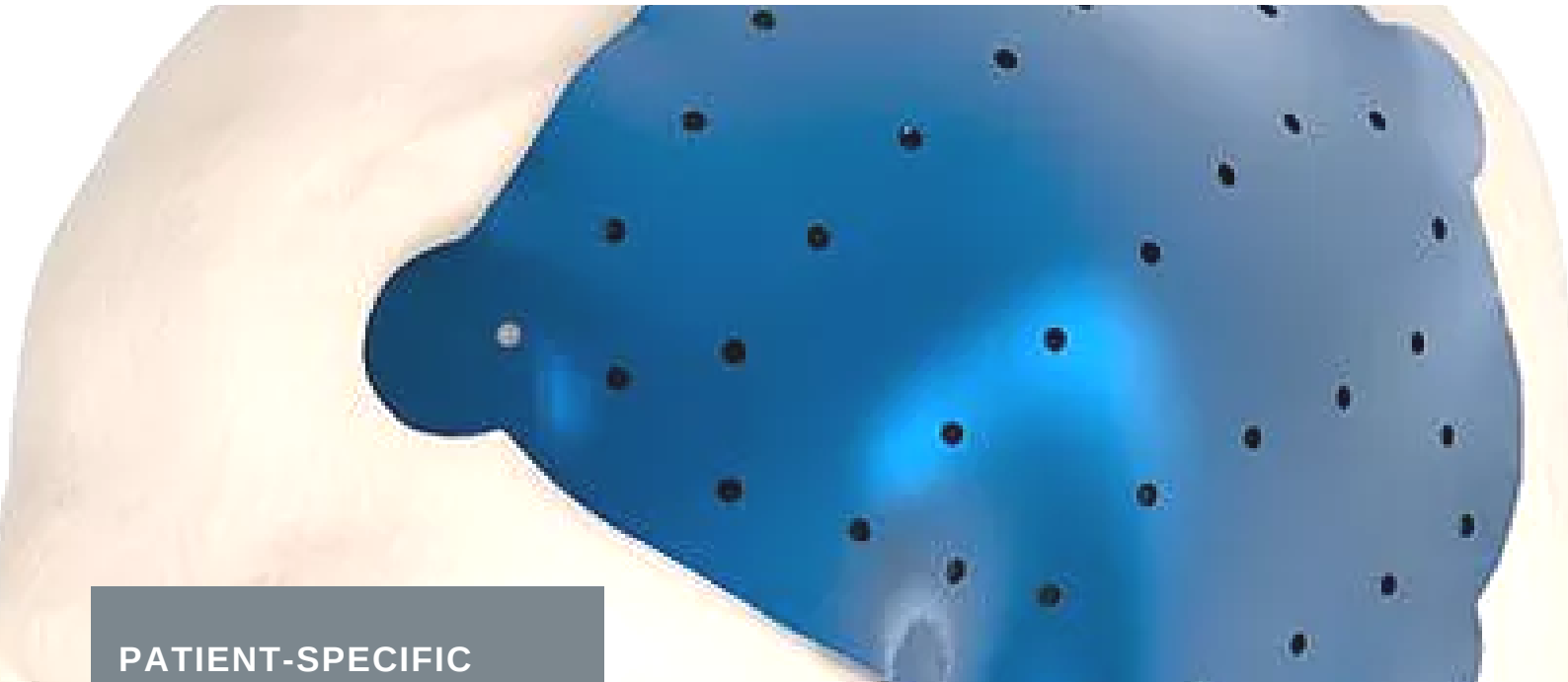


# CRANIAL IMPLANTS

Patient-specific implants for cranial reconstruction surgery



## PATIENT-SPECIFIC IMPLANTS

Techfit® patient-specific cranial implants are the recommended solution for the correction of skull defects caused by trauma or oncological events, with the aim of avoiding brain atrophy and restoring aesthetics

## Cost effective solution

Techfit Digital Surgery

TECHFIT Patient-specific Cranial Implants provide procedural support for cranial reconstruction through:

- Preoperative visualization of the patient's anatomy and condition
- Virtual simulation and optimization of osteotomies and facial reconstructions
- Improved communication between the patient and the surgery team
- Comparison of the preoperative plan and postoperative results
- 3D printed anatomic model is provided as a preoperative guide to demonstrate the orientation and fit of the patient-specific implant.

TECHFIT Cranial Implants are patient-specific single-use medical devices

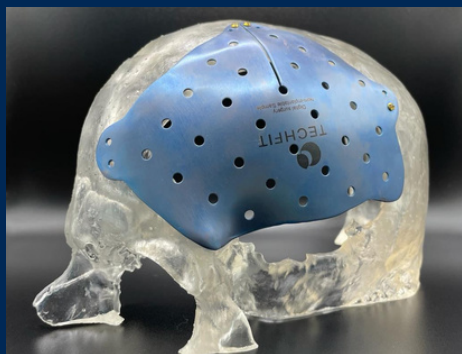
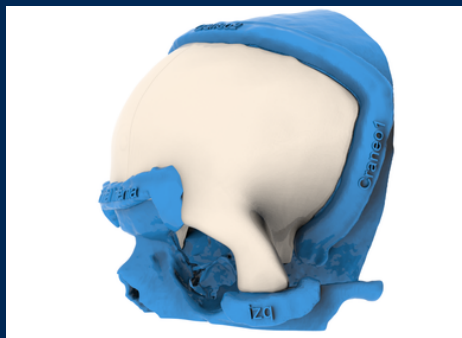
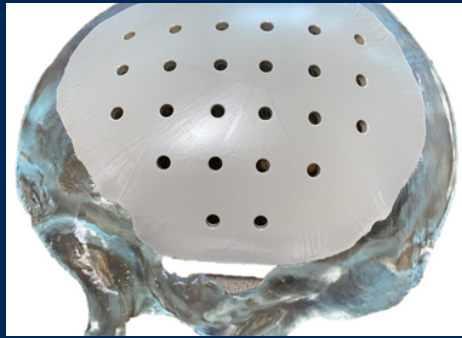
# Technical characteristics

Material	PEEK or Titanium
Manufacturing process	CNC Machined or premolded and 3D printed
Fixation system	1.5mm or 2.0 mm screws according to the surgeon's criteria



TECHFIT  
Digital Surgery

## Design and accessories



Depending on the size (length, width and height) of the required implant, a single or multi-piece implant can be designed, with or without osteotomy guides. Multi-piece implants allow the surgeon greater flexibility in treating defects. Multi-piece implants can be attached using standard craniofacial and craniofacial fixation systems from different commercial houses

The design and manufacturing of the solution is based on the healthy anatomical mirror of the patient. There is a variable thickness according to the type of reconstruction and preference of the specialist to maintain the symmetry.

TECHFIT patient-specific Implants are delivered with a 3D printed anatomic model and / or an implant model. This model is a Class I standalone medical device intended for visualization only. Anatomic models and / or implant models can be ordered by the surgeon for their own reference or to educate the patient on the surgical procedure.

Anatomic models and implant models:

- They are not indicated to enter the operating room.
- Made with Clear resin, acrylonitrile butadiene styrene (ABS) or polylactic acid (PLA).
- Use for pre-surgical planning
- They are not meant to go into the operating room.

## MATERIALS DETAILS

TECHFIT cranial implants are manufactured in:

- Polyether Ether Ketone (PEEK) (ASTM F2026):
- Commercially Pure Biocompatible Titanium Grade 4 (ASTM F67)

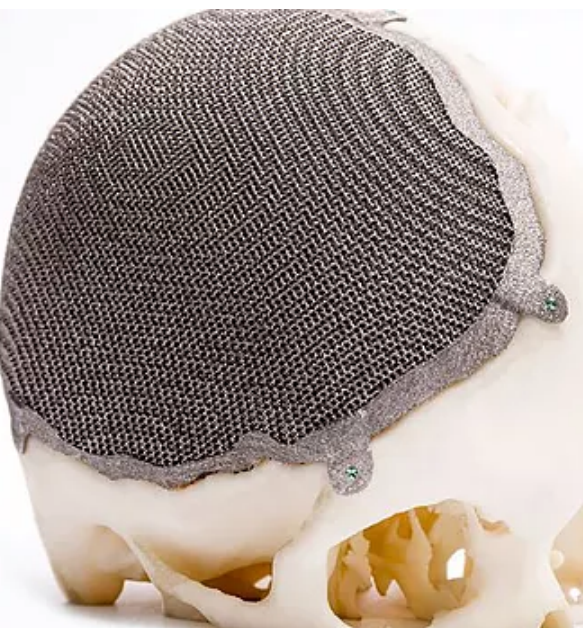
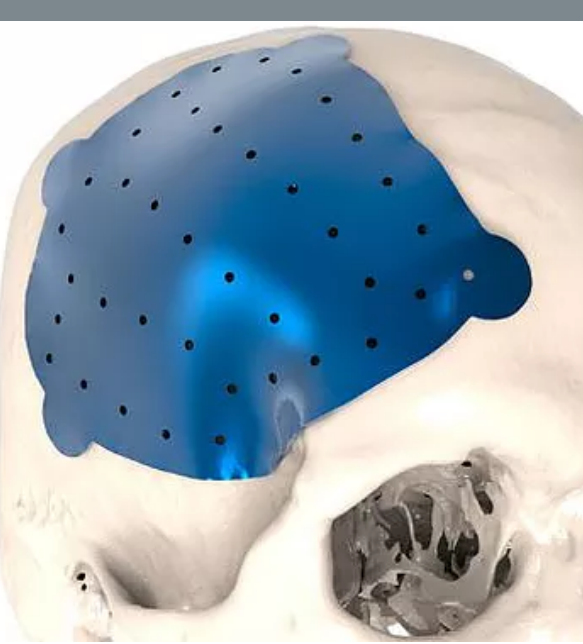
### Why use TECHFIT patient-specific Cranial implants?

- Better anatomical fit compared to conventional fixation / reconstruction methods
- Reduced operating time compared to traditional reconstruction methods that require extensive contouring
- Satisfactory aesthetic results
- Suitable materials for definitive treatment
- Autoclavable: resists repeated sterilization

Implants must be unpacked and handled carefully to avoid damage to the surface or geometry, such as scratches, marks, nicks, debris, discoloration, and abrasion (corrosion) caused by contact with other implants, instruments, tools, or drops.

To ensure the correct functioning of the implants, the surgeon must follow the specific surgical techniques and follow the indications of the system.

Techfit Digital Surgery supplies the products non-sterile and requires sterilization before use following the manufacturer's specifications and recommendations.



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