

The custom approach
for complex defects

Puros[®] Allograft Customized Block

Implant Information



 **ZimVie**

Puros Allograft Customized Block

Patients with severe atrophy of the mandible or maxilla who have elected for an implant-supported restoration may benefit from customized treatment. Allogenic (human) blocks as well as autologous blocks are the choice materials for the bone graft required for these cases. The success or failure of the grafting procedure may be determined by how well the block conforms to the defect.

Puros Allograft Customized Blocks are a crucial developmental step in block grafting. A custom block is produced using CAD/CAM technology based on a CBCT/CT scan of the defect area. This makes the procedure more comfortable for your patient by reducing surgery time and minimizing the risk of complications.¹

Benefits of Puros Customized Blocks Tutoplast® Process

- Retains osteoconductive properties due to the preservation of the natural bone matrix collagen and mineral composition, trabecular pattern, and original porosity.^{2,3}
- Sterilized and preserved using the proprietary Tutoplast Process, customized allogenic blocks are a high-quality option for successful bone regeneration procedures.⁴
- Over the past 50 years:⁵
 - Approximately 6 million implants have gone through the Tutoplast Process globally.
 - More than 5.5 million patient procedures have been performed using implants processed through the Tutoplast Process globally.
 - Zero incidents of implant-associated infection.

Congruent in Shape

- Customized block fits congruently to defect.
- Large contact surface area improves ingrowth of blood vessels and revascularization.⁶

Reduced Surgery Time

- Additional manual adjustment of the defect and of the customized block is seldom required, allowing for reduced surgery time and reduced morbidity.⁷



Workflow From Scanning to Surgery



Scan

Scan patient's defect using a CBCT machine. Save the resulting DICOM file.



Upload

Log in to implantconcierge.com. Create a new Puros Bone Block Case and upload DICOM file. You may need to create a new account on implantconcierge.com if you don't already have one.



Design

ZimVie Dental will design a Customized Block according to the parameters provided by you on the Implant Concierge portal. An email will notify you once the block design is ready for your review.



Review

Log in to the Implant Concierge website to review the provided images of your design. You may download the design STL and view in the STL viewer of your choice. If needed, edits can be requested directly in the case on the Implant Concierge website.



Approve Design

Once you are satisfied with the design via the Implant Concierge website, click to approve the design and follow the prompts to accept charges and authorize production. Your authorization is required to release the block for milling.



Milling

A Puros Allograft Customized Block will be milled from Tutoplast-processed, allogenic cancellous bone.



Shipping

The final block will be gamma sterilized and is provided in double-pouched, sterile packaging. The milled block will be shipped in approximately 8 weeks after your authorization.*



Surgery

Implant the Puros Allograft Customized Block on the patient's defect per the treatment plan.

* Please contact your radiologist or device manufacturer if you have any questions on DICOM export.

*Shipping lead times may vary by case.

Key Considerations Prior to Surgery

Considerations During Imaging

Preparation of Patient

- Remove temporaries and metal restorations, where possible.
- Position patient in stable position.

Imaging Requirements

- In general, all CT/CBCT devices are suitable.
- Recommended slice thickness: 0.2 to 0.6 mm.
- Gantry angle: 0°
- Please ensure that high-contrast imaging is achieved, particularly in the case of cancellous structures and thin residual bone (e.g. thin sinus floor).

Scan Data

- Do not use data compression.
- Data must be provided in DICOM format only (.dicom or .dcm)*.
- Copy the DICOM data and save it in a storage medium (Computer, USB stick, etc.) and have it accessible when creating your case on Implant Concierge.

Considerations on the Day of Surgery

- Despite precise planning, minor manual adjustments may be required in the unlikely event that the block does not fit as expected.
- Ensure you have the appropriate instruments (e.g., Luer, milling, piezo) available for any required manual adjustments.

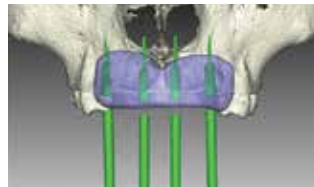
Ordering Information

Puros® Allograft Customized Block

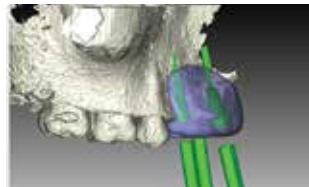
Catalog Number	Description	Dimensions
68217	PUROS ALLOGRAFT CUSTOMIZED BLOCK, STANDARD SIZE	27 x 15 x 15 mm max
68218	PUROS ALLOGRAFT CUSTOMIZED BLOCK, LARGE SIZE	27.1 x 15.1 x 15.1 mm min - 60 x 30 x 30 mm max



Narrow knife edge ridge



Facial view of block design



Horizontal view of design



Full thickness flap, severe defect



Large size block



Fixed into place using 4x fixation screws



Covered using Puros® Pericardium Membrane



Primary closure required. Osseoguard PTFE non resorbable sutures used.



Pre-plantation ridge



Six months healing post implantation ridge width.



Four Tapered Screw-Vent® Dental Implants placed



Final restoration

Images courtesy of Dr. Eric Lewis, McComb Mississippi, U.S.

References:

1. Kim K, et al. Interspinous Process Fixation versus Pedicle Screw Fixation in Circumferential Fusion: Outcomes from a Prospective Randomized Multi-Center Trial. North American Spine Society (NASS) Annual Meeting, Oct 2016. Boston, MA. Podium Presentation.
2. Data on File.
3. Karahalios DG, et al. Biomechanics of a lumbar interspinous anchor with anterior lumbar interbody fusion. J Neurosurg Spine. 2010;12(4):372–380.
4. Kaibara T, et al. Biomechanics of a lumbar interspinous anchor with transforaminal lumbar interbody fusion. World Neurosurg. 2010;(73)5:572–77.
5. Fogel GR, Toohey JS, Neidre A, Brantigan JW. Fusion assessment of posterior lumbar interbody fusion using radiolucent cages: X-ray films and helical computed tomography scans compared with surgical exploration of fusion. Spine J. 2008;8:570–7.

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