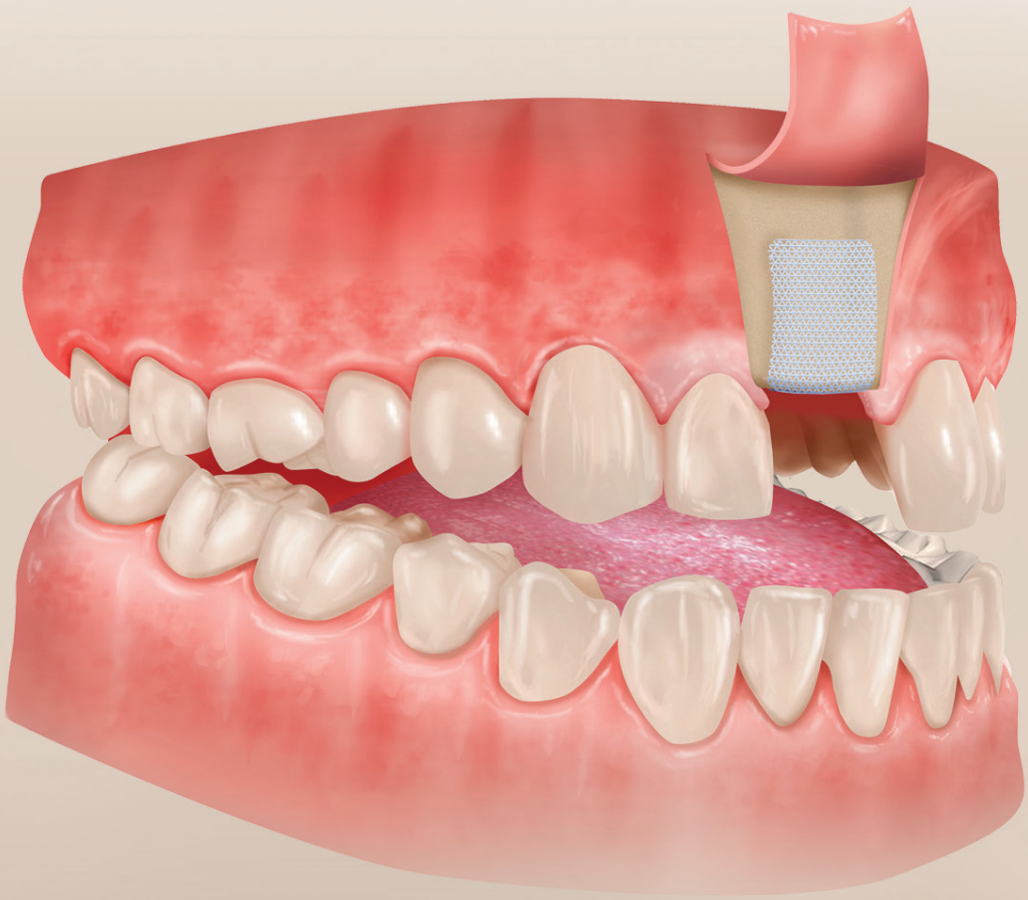
Osteopore®

DENTAL

Osteomesh®

In Guided Bone Regeneration



Osteomesh® In Guided Bone Regeneration

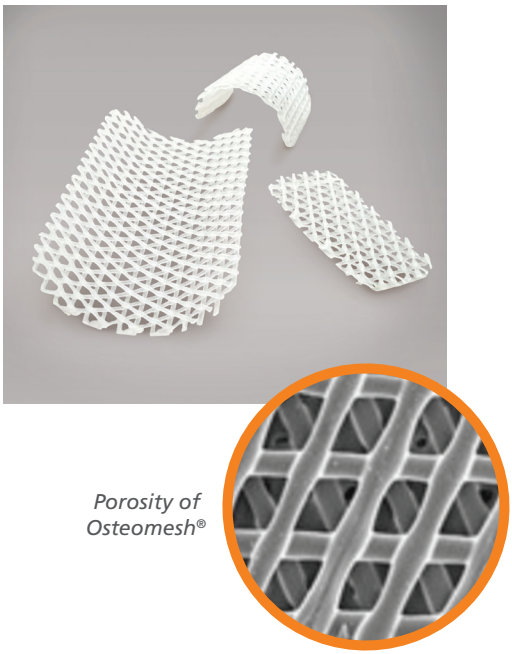
1 BIOMIMETIC

Osteomesh® is a specially engineered 3D printed bioresorbable mesh designed to mimic the microarchitecture of natural bone. The characteristics of this regenerative technology meet the procedural needs of guided bone regeneration. The easy-to-handle Osteomesh® scaffold implant composed of Polycaprolactone (PCL) encloses the graft material and forms the contours of the desired reconstructed jaw.

PCL has a proven clinical history [1,2] for maxillofacial indications. The interconnected micro-architecture of Osteomesh® facilitates osteoblast proliferation and infiltration whilst enabling bone graft stability and natural bone regeneration. The Osteomesh® predictable resorption profile [3,4] avoids the need for an additional procedure, thus delivering clinical ease and patient comfort.

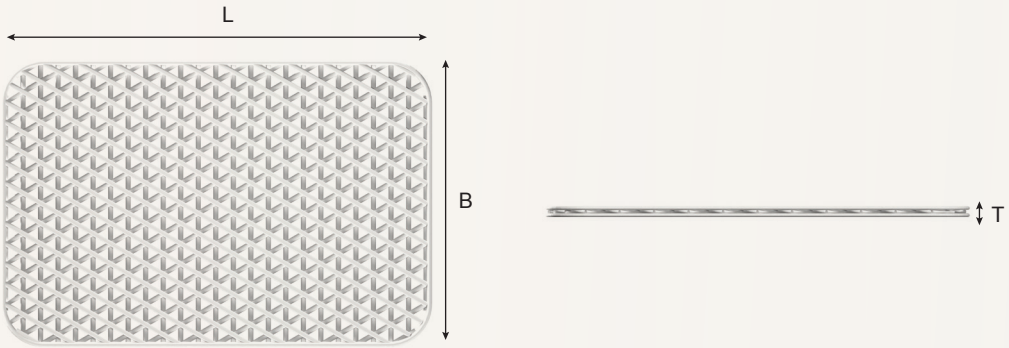
2 FEATURES & BENEFITS

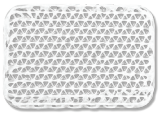
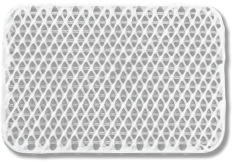
FEATURES	BENEFITS
Manufactured from PCL	• Bioresorbable, biocompatible, proven technology, and non-toxic.
100% synthetic	• No animal tissue concerns such as disease transmission or cross reaction.
Predictable resorption profile	• Protects against soft tissue collapse and predictably maintains both shape and volume of the desired bone tissue. Bone remodeling takes place before complete degradation at 18 - 24 months.
User friendly	• Semi-flexible, easy to handle and provided in a range of sizes which can be trimmed with scissors.
3D Printed	• Can be customised to specific patient anatomical needs as required to achieved optimal outcomes.



Porosity of Osteomesh®

3 PRODUCT SPECIFICATIONS



	PRODUCT CODE	SIZE (L X B X T)/MM
	PC12(20,10,0.4) PC12(20,10,0.75)	20 x 10 x 0.4 20 x 10 x 0.75
	PC12(20,15,0.4) PC12(20,15,0.75)	20 x 15 x 0.4 20 x 15 x 0.75
	PC12(20,30,0.4) PC12(30,20,0.75)	20 x 30 x 0.4 30 x 20 x 0.75

Pictures of the product in actual size

More sizes available, please approach your country's distributor

4 CLINICAL ADVANTAGE

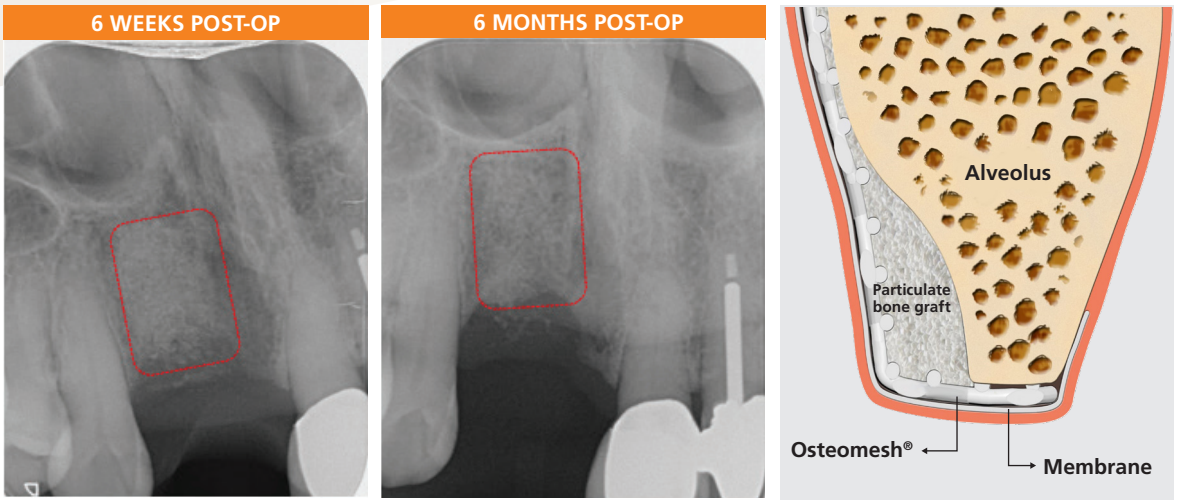
PATIENT'S PERSPECTIVE

- Osteomesh® has an excellent safety profile. Adverse reaction is not observed to date.

CLINICAL PERSPECTIVE

- Osteomesh® was carefully designed to speed up procedure due to its semi-flexible feel, easier cutting characteristics and ease of use, which is essential for the success of the treatment.
- Osteomesh® works well with all type of graft materials including autogenous bone.
- Osteomesh® has an ideal structures that can maintain its contour and shape throughout the course of healing.

Successful horizontal width and vertical height restoration



Osteomesh® trimmed and moulded into an "L-Shape" that creates stable horizontal and vertical bone volume around the defect. This results in a stable hard and soft-tissue condition following healing.

References

[1] Schuckert KH, Jopp S, Teoh SH. Mandibular defect reconstruction using three-dimensional polycaprolactone scaffold in combination with platelet-rich plasma and recombinant human bone morphogenetic protein-2: de novo synthesis of bone in a single case. Tissue Eng Part A. 2009 Mar;15(3):493-9. doi: 10.1089/ten.tea.2008.0033. PMID: 18767969.

[2] Goh BT, Teh LY, Tan DB, Zhang Z, Teoh SH. Novel 3D polycaprolactone scaffold for ridge preservation--a pilot randomised controlled clinical trial. Clin Oral Implants Res. 2015 Mar;26(3):271-7. doi: 10.1111/clr.12486. Epub 2014 Sep 27. PMID: 25263527.

[3] Lam CX, Hutmacher DW, Schantz JT, Woodruff MA, Teoh SH. Evaluation of polycaprolactone scaffold degradation for 6 months in vitro and in vivo. J Biomed Mater Res A. 2009 Sep 1;90(3):906-19. doi: 10.1002/jbm.a.32052. PMID: 18646204.

[4] Lam CX, Savalani MM, Teoh SH, Hutmacher DW. Dynamics of in vitro polymer degradation of polycaprolactone-based scaffolds: accelerated versus simulated physiological conditions. Biomed Mater. 2008 Sep;3(3):034108. doi: 10.1088/1748-6041/3/3/034108. Epub 2008 Aug 8. PMID: 18689929.

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Osteopore®
Empowering Natural Tissue Regeneration

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