



## Introducing **THE Graft**

A safe and clinically proven natural bone substitute



Intelligent Simplicity

# Natural bone substitute

## THE Graft™

Bone possesses the intrinsic capacity for regeneration as part of the repair process in response to injury, development or remodelling. Where bone regeneration is impaired, bone grafting materials are used to augment regeneration in a variety of maxillofacial procedures.

THE Graft™ is a natural, porcine bone mineral matrix for bone reconstruction. Due to its native structure THE Graft™ likens the physical and chemical aspects of mineralized matrix of human bone.

During the healing process, THE Graft™ is gradually resorbed and remodelled. Over time THE Graft™ is replaced with newly formed vascularized bone for long term results.<sup>1</sup>

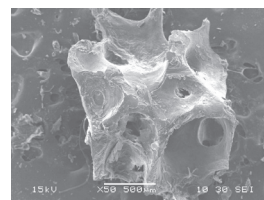
## Less residual organic content for High Purity

### Safe and clean

Safety and purity are an important concern when using a biomaterial. Thanks to the highly efficient patented manufacturing process THE Graft™ is virtually free from any organic components that might be potential causes of infection or immune reaction.<sup>2</sup>

In addition the unique process helps preserve the physical properties of THE Graft™ with its native osseous structure.

- ✓ Clean surface
- ✓ Vascular porosity
- ✓ Biocompatibility
- ✓ Fast angiogenesis
- ✓ Bone volume maintenance



Human bone



THE Graft™

#### References:

- <sup>1</sup> Lee JS, Cha JK, Kim CS. Alveolar ridge regeneration of damaged extraction sockets using deproteinized porcine versus bovine bone minerals: a randomized clinical trial. *Clin Implant Dent Relat Res.* 2018;20(5):729-37.
- <sup>2</sup> Lee JH, Yi GS, Lee JW, Kim DJ. Physicochemical characterization of porcine bone-derived grafting material and comparison with bovine xenografts for dental applications. *J Periodontol Implant Sci.* 2017;47(6):388-401.
- <sup>3</sup> Figueiredo MJ, Fernando A, Martins G, Freitas J, Judas F, Figueiredo H. Effect of the calcination temperature on the composition and microstructure of hydroxyapatite derived from human and animal bone. *Ceramics Int.* 2010;36(8):2383-93.
- <sup>4</sup> Renders GA, Mulder L, van Ruijven LJ, van Eijden TM. Porosity of human mandibular condylar bone. *J Anat.* 2007;210(3):239-248.
- <sup>5</sup> Go A, Kim SE, Shim KM, Lee SM, Choi SH, Son JS, Kang SS. Osteogenic effect of low-temperature-heated porcine bone particles in a rat calvarial defect model. *J Biomed Mater Res A.* 2014;102(10):3609-17.

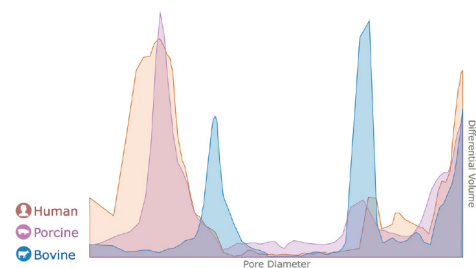


# Getting closer to human bone

## Increased Biocompatibility

The combination of porcine origin with the high level of purity enables predictable bone growth without risking an immunogenic reaction. In an In-Vitro study THE Graft™ was shown to encourage cell adhesion to the same extent as the compared DBBM (Deproteinized bovine bone matrix), and therefore offering optimal conditions for vital cell growth.

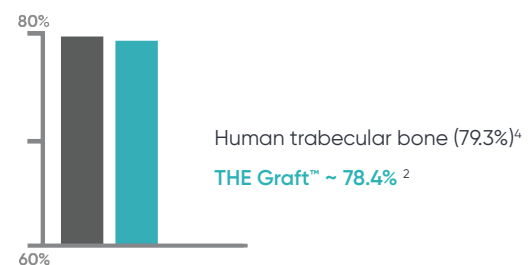
Comparison of bone structure and composition from human and animal origin<sup>3</sup>



## Increased Porosity

The high porosity of THE Graft™ means a quicker absorption of fluids (e.g; blood) in comparison with DBBM. This not only facilitates the application of the material but also leads to early remodelling and improved clinical performance.

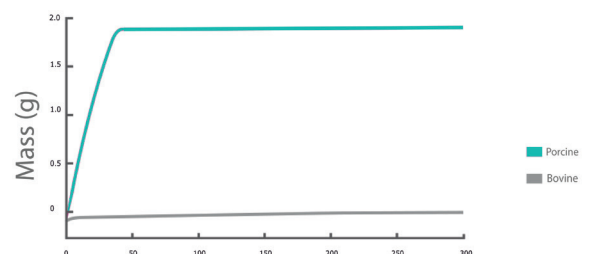
Global porosity analysis



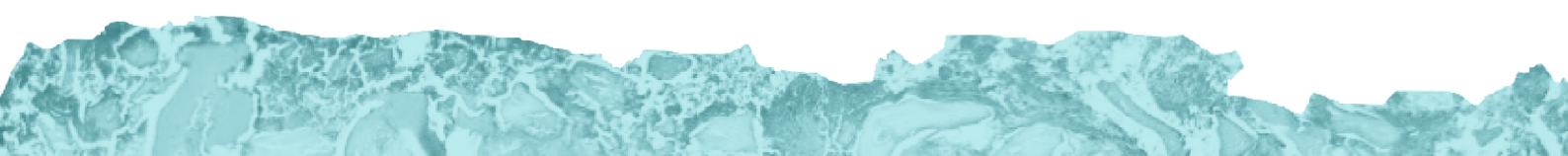
## Increased Hydrophilicity

THE Graft™ has shown to have higher wettability than the compared xenografts.<sup>5</sup> Wettability is important for the attachment, growth and proliferation for various types of cells including osteoblasts.

Wetting mass of the graft materials as a function of time<sup>5</sup>



This result indicates that the wettability of THE Graft™ was significantly higher than the bovine bone



THE Graft™ is available in 3 delivery options. The standard vial, The syringe for easy access to the sinus and extraction sockets, and the Collagen Block, THE Graft™ Collagen Block is a mix of 90% THE Graft™ and 10% collagen which can be easily cut and shaped for socket and ridge preservation.

Description	Item N°	Size	Volume	
THE GRAFT™ Granule 	BG-A15	0.25-1mm	0.36cc	0.15g
	BG-A25	0.25-1mm	0.60cc	0.25g
	BG-A05	0.25-1mm	1.20cc	0.50g
	BG-A10	0.25-1mm	2.40cc	1.00g
	BG-A20	0.25-1mm	4.80cc	2.00g
	BG-B05	1-2mm	1.80cc	0.50g
	BG-B10	1-2mm	3.60cc	1.00g
THE GRAFT™ Syringe 	TG-AS25	0.25-1mm	0.25cc	0.10g
	TG-AS05	0.25-1mm	0.50cc	0.21g
	TG-AS10	0.25-1mm	1.00cc	0.42g
	TG-BS25	1-2mm	0.25cc	0.07g
	TG-BS05	1-2mm	0.50cc	0.14g
	TG-BS10	1-2mm	1.00cc	0.28g
	THE GRAFT™ Collagen Block 	TCB-01		7x7x7
TCB-02			8x9x10	300mg
TCB-03			10x11x12	600mg



## Typical applications

Extraction socket with intact socket	✓
Extraction socket with defective socket	✓
Minor bone augmentation	✓
Major bone augmentation	✓
Sinus floor elevation	✓
Periodontal defect	✓

*nb. please consider granule size in your selection*

Also available from Neoss: NeoGen® Resorbable Collagen Membranes and Purgo Biotex® Sutures

Contact your local representative for product availability details. All products are not available on every market.

## Addresses

### Germany

Neoss GmbH  
Im MediaPark 5b  
DE-50670 Köln  
T +49 221 96980 10  
F +49 221 96980 199  
E info@neoss.de

### Sweden

Neoss AB  
Arvid Wallgrens backe 20  
SE-413 46 Göteborg  
T +46 (0)31 88 12 80  
E info@neoss.se

### United Kingdom

Neoss Ltd  
Windsor House  
Cornwall Road  
Harrogate  
HG1 2PW  
T +44 1423 817-733  
F +44 1423 817-744  
E info@neoss.com

CE 1434



**Manufacturer:** Purgo Biologics Inc., 812, 27, Dunchon-daero 457beon-gil, Jungwon-gu, Seongnam-si, Gyeonggi-do, 13219, Korea  
Tel: +82 2 548 1875 | Made in Korea | www.purgo-biologics.com

**EU Authorized Representative:** OBELIS S.A, Bd. General Wahis, 53 1030, Brussels, Belgium  
Tel: +32 2 732 59 54 | Fax: +32 2 732 60 03 | E-mail: mail@bbefe.net | www.obelis.net

**Europe Importer:** Purgo Biologics Europe, 1 Square Felix Bloch, PA-Pole d'Activ Ocean, 85 300 Challans, France  
Tel: +33 02.28.10.61.02 | Email: europe@purgobiologics.com | www.purgo-europe.com

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