



Type	Item No.	Size
Block Type Height x Length x Width(mm) <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> </div>	TCB-01	7x7x7mm
	TCB-02	8x9x10mm
	TCB-03	10x11x12mm
	TCB-05	5x5x5mm
	TCB-06	5x5x10mm
	Ring Type Height(mm) x Inner(ø) x Outer(ø) <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> </div>	TCR-01
TCR-02		5x4x9mm
TCR-03		5x5x10mm

Clinical Report



LEE, Jae-Hong; JUNG, Eun-Hee; JEONG, Seong-Nyum. Augmentation Stability of Guided Bone Regeneration for Peri-Implant Dehiscence Defects with L-shaped Porcine-Derived Block Bone Substitute. *Materials*, 2021, 14.21: 6580.



LEE, Jae-Hong; JEONG, Seong-Nyum. Use of Porcine-derived Block Bone Substitutes for Guided Bone Regeneration in the Peri-implant Dehiscence Defects of the Mandibular Anterior Region. 2021

Case Report



LEE, Jae-Hong; JUNG, Eun-Hee; JEONG, Seong-Nyum. Profilometric, volumetric, and esthetic analysis of guided bone regeneration with L-shaped collagenated bone substitute and connective tissue graft in the maxillary esthetic zone: A case series with 1-year observational study. *Clinical Implant Dentistry and Related Research*, 2022, 24.5: 655-663.



Sinus Membrane Perforation
 Immediate Implant-Ring
 Management of non-contained extraction socket
 Peri-Implantitis
 Simultaneous Augmentation

Reference

- 1) U. Cheema, M. Ananta, V. Mudera. Collagen: Applications of a Natural Polymer in Regenerative Medicine. *Regenerative Medicine and Tissue Engineering*, 2011.
- 2) KY Jang, JH Lee, SH Oh, BD ham, SM Chung, JK Lee. Bone graft materials for current implant dentistry. *Journal of Dental Implant Research* 2020; 39(1): 1-10
- 3) Wahl, D.; Czernuszka, J. Collagen-Hydroxyapatite Composites for Hard Tissue Repair. *Eur. Cells Mater.* 2006, 11, 43-56.
- 4) Thunwa Binitaleh, Peungchaleoy Thammanichanon, Pawornwan Rittipakorn, Natthapol Thinsathid, Paiboon Jitprasertwong. Collagen-Based Biomaterials in Periodontal Regeneration: Current Applications and Future Perspectives of Plant-Based Collagen. *Biomimetics*. 2022, 24;7(2):34.
- 5) Ryan, A.; Gleeson, J.P.; Matsiko, A.; Thompson, E.M.; O'Brien, F.J. Effect of different hydroxyapatite incorporation methods on the structural and biological properties of porous collagen scaffolds for bone repair. *J. Anat.* 2015, 227, 732-745.

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THE Graft™ Collagen

Bone Substitute with Collagen



Bone Substitute with Collagen

THE Graft™ (porcine-derived Xenograft) + Type I Collagen

- **THE Graft™ Collagen** block is composed of hydroxyapatite derived from porcine cancellous bone (THE Graft™) and Type 1 collagen from porcine tendon in a shape of a block or a ring.
- **THE Graft™ Collagen** bone mineral matrix is similar to physical and chemical aspects of human bone mineralized matrix.
- **THE Graft™ Collagen** was developed to enhance user convenience, and it is a bone graft intended to fill, augment, and/or reconstruct periodontal, oral, and maxillofacial defects.
- Due to the properties of fibrous collagen, **THE Graft™ Collagen** can be trimmed and/or molded to the various defect shapes and can be fixed in bone defect site. As time passes, **THE Graft™ Collagen** is partially transformed by the osteoclast and osteoblast cells.



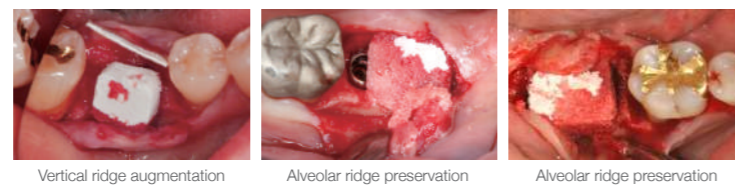
WHY THE Graft Collagen™

- While being manufactured, the structure of THE Graft™ is maintained and the shape of matrix is preserved as the fibrous collagen holds the granules in place.
- A high surface energy and porosity of Matrix ease the migration, adhesion, and growth of cells, which is helpful for bone regeneration and volume stability.
- Collagen promotes not only healing and regeneration but also hemostasis.
- Consistency, safety, and effectiveness of products are ensured through overall quality control from raw material selection to the final product.

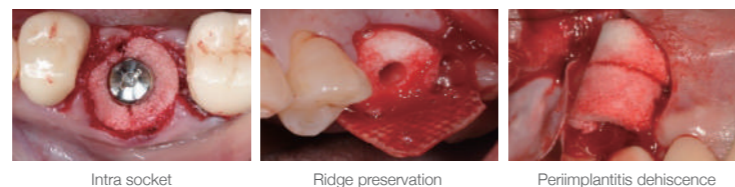


Various Shapes & Sizes

Block Type



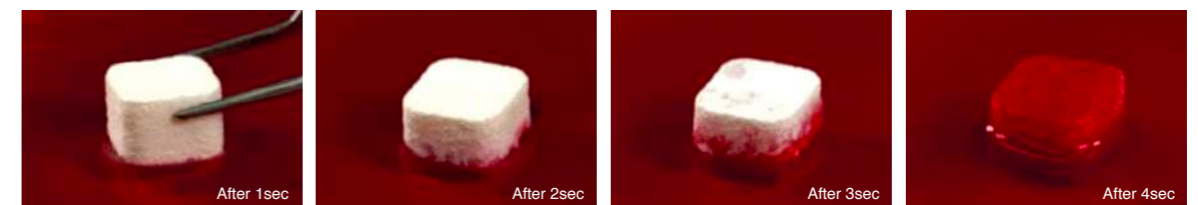
Ring Type



Excellent Hydrophilicity

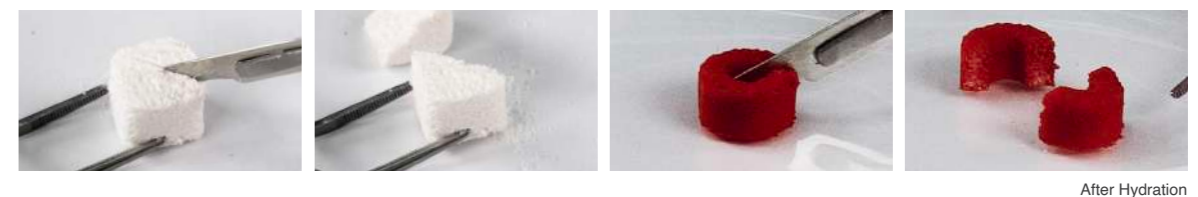
- High surface energy and interconnective pores allow to have high hydrophilicity.
- High hydrophilicity enables the absorbance of more blood and is advantageous for attracting proteins such as growth factors and cytokines needed for new bone regeneration.

| Hydration Test | (After 4sec)



Easy Handling & Moldable

- **THE Graft™ Collagen** is a moldable bone graft material due to its easy handling before and after hydration.
- With excellent handling property, **THE Graft™ Collagen** can be adapted to each defect site with more ease.

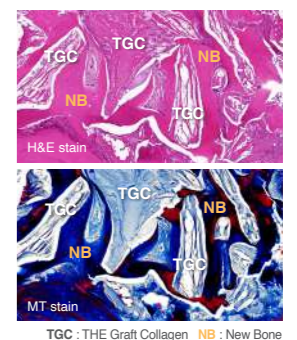
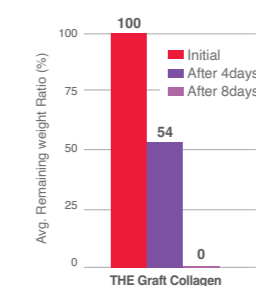


After Hydration

Excellent Bone Remodeling

- **THE Graft™ Collagen** prevents the collapse of the introduced space for bone formation, providing space-making stability and volume maintenance.
- Balanced interconnective pores play a decisive role in the recruitment and penetration of cells from surrounding bone tissue as well as osteoconductivity in bone regeneration.
- The high osteoconductivity of **THE Graft™ Collagen** allows rapid remodeling through integration with new bone.

Remaining Weight Ratio(%) Change Over Time



TGC : THE Graft Collagen NB : New Bone