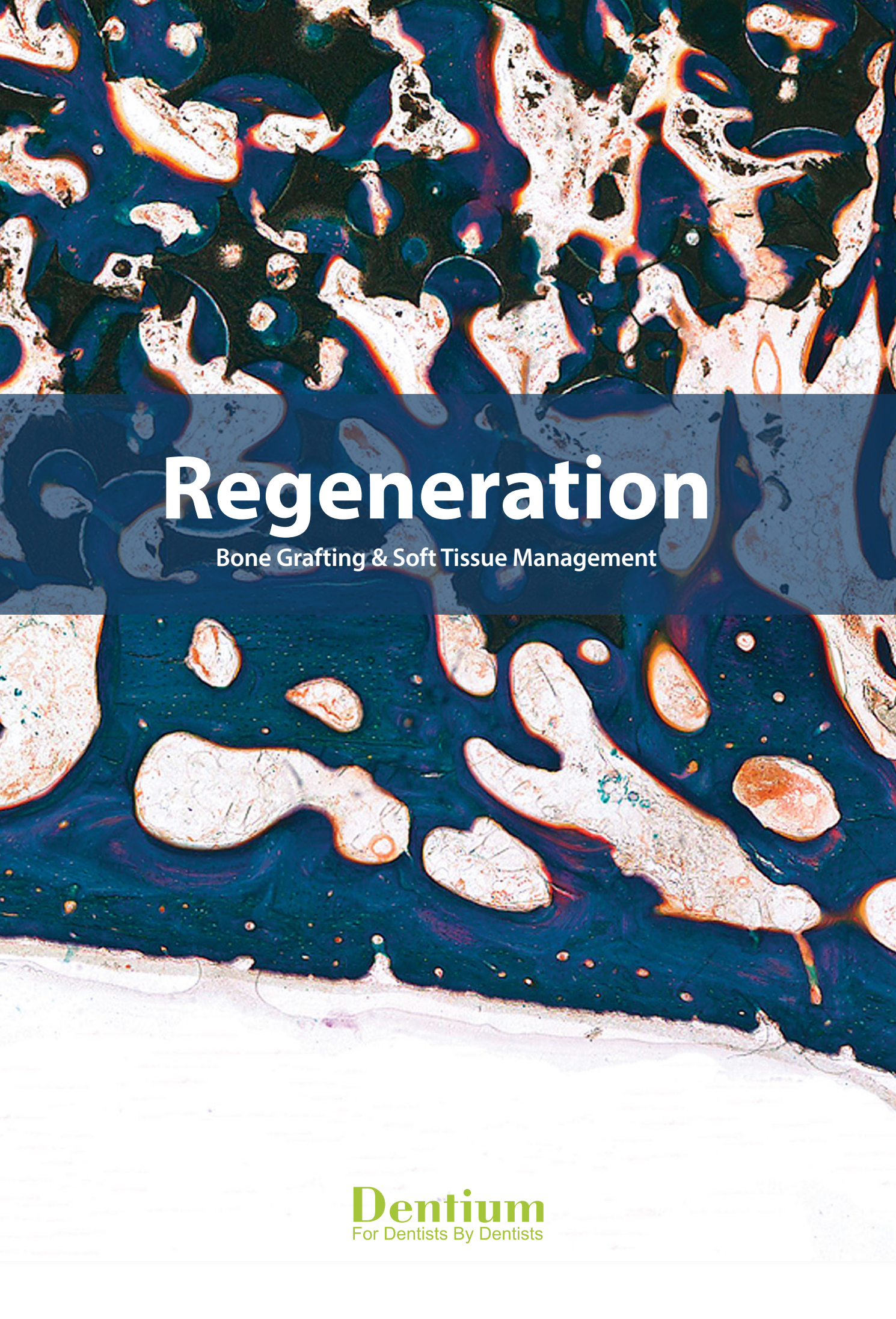
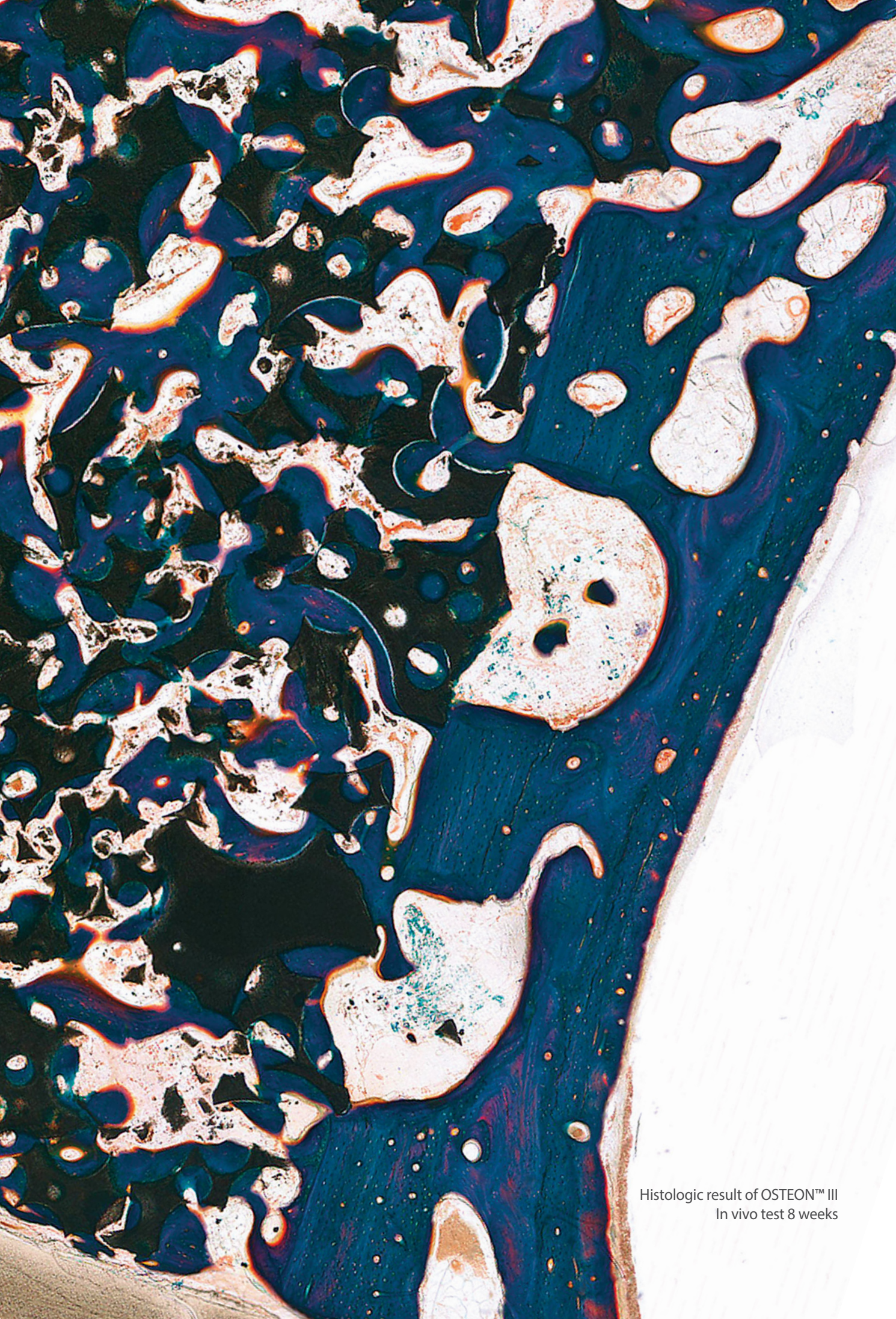


Regeneration

Bone Grafting & Soft Tissue Management

Dentium

For Dentists By Dentists



Histologic result of OSTEON™ III
In vivo test 8 weeks

Regeneration
Products information

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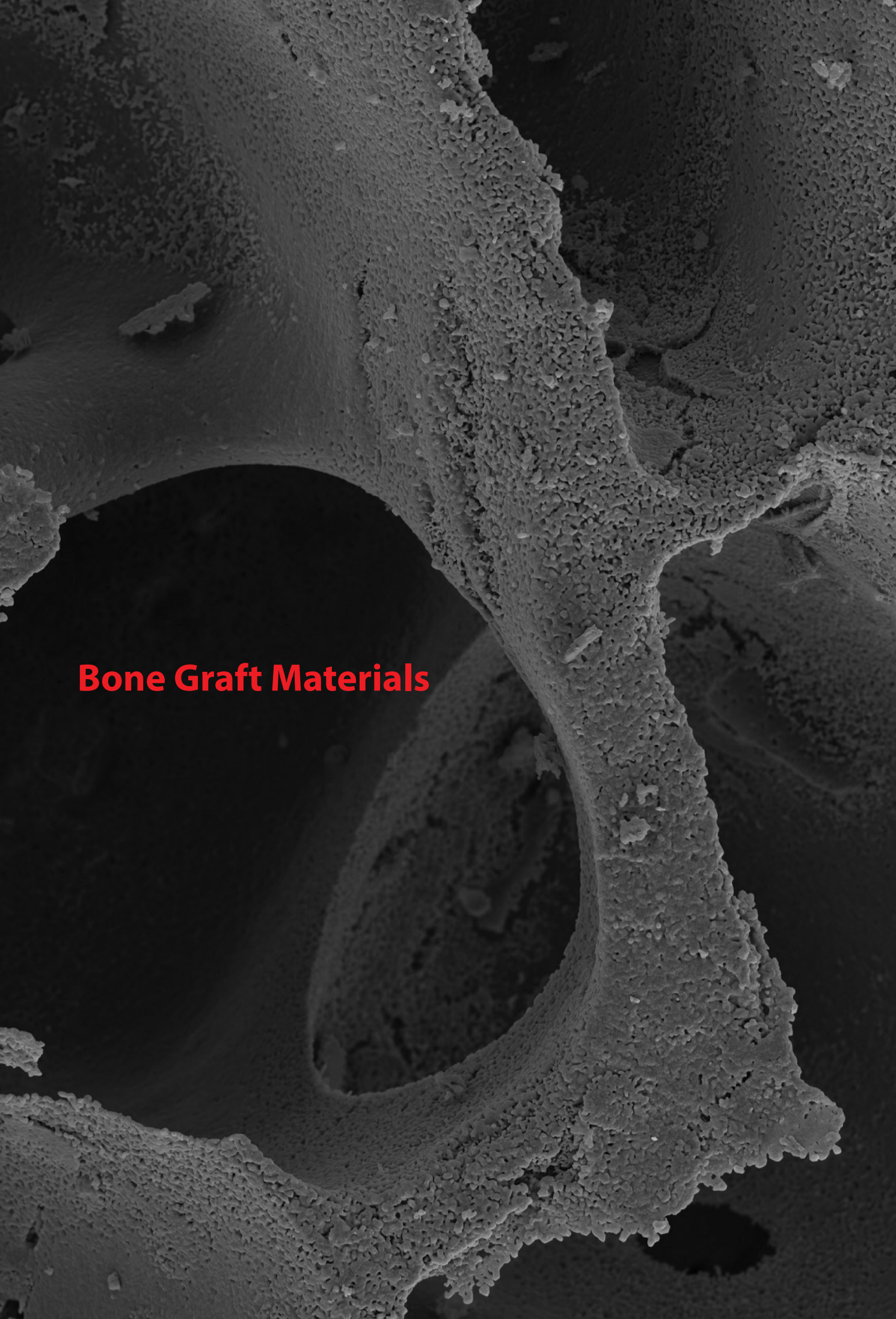
Dentium
For Dentists By Dentists


Bone Graft Materials

OSTEON™ III

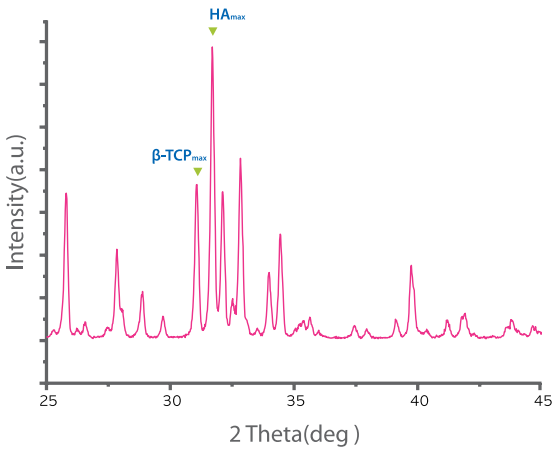
Applications

- Ridge augmentation
- Extraction site & osteotomy
- Sinus lift
- Periodontal defect

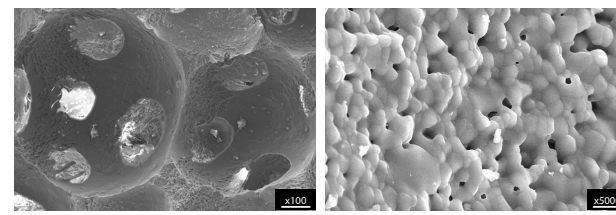
Composition

OSTEON™ III is a biphasic calcium phosphate composed of 60% HA(Hydroxyapatite) and 40% β-TCP(Beta-Tricalcium Phosphate)

OSTEON™ III = HA 60% + β-TCP 40%



Microstructure



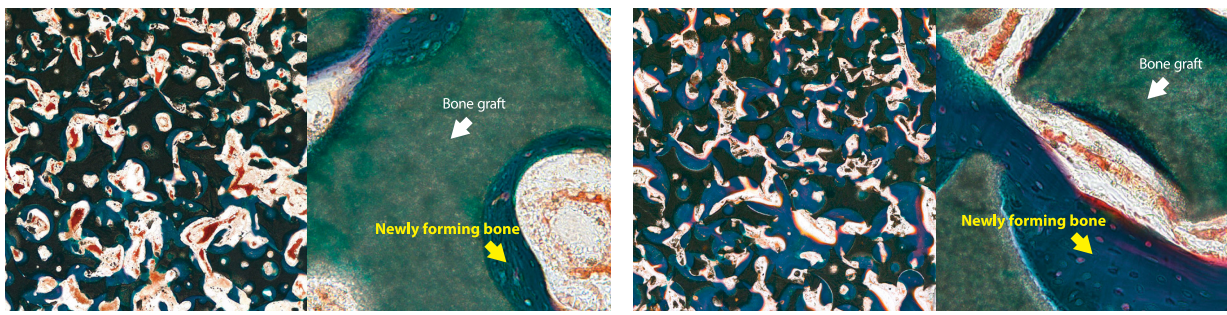
Macropore Micropore

Characteristics of OSTEON™ III

- Easy manipulation
- Excellent wettability
- Osteoconductive synthetic bone graft
- Porosity : 80%

Animal Test

Rabbit calvaria model, 4-8 weeks



4 weeks 8 weeks

OSTEON™ II

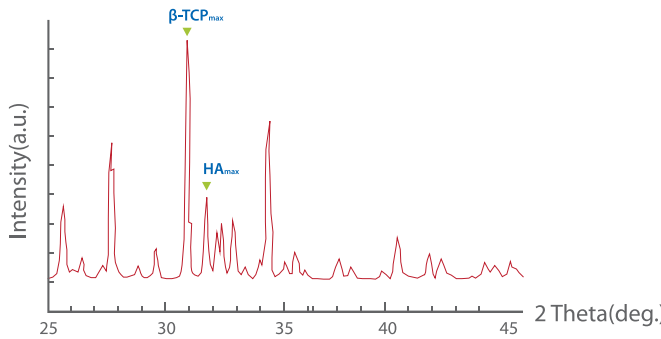
Applications

- Ridge augmentation
- Extraction site & osteotomy
- Cystic cavities
- Sinus lift
- Periodontal defect

Composition

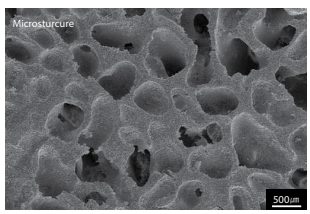
Osteoconductive biphasic calcium phosphate with higher β-TCP

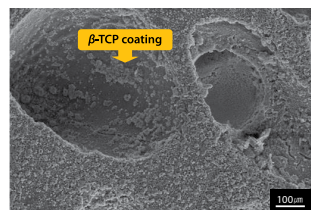
OSTEON™ II = HA 30% + β-TCP 70%



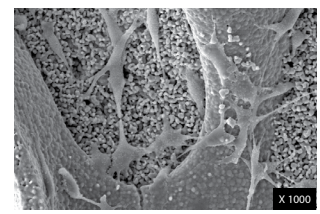
Characteristics of OSTEON™ II

- Highly resorbable due to higher β-TCP content
- Easy manipulation
- Excellent wettability
- Osteoconductive synthetic bone graft
- Pore size : 250㎛
- Porosity : 70%

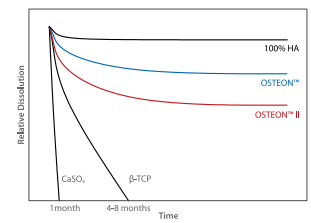




Cell Adhesion Test



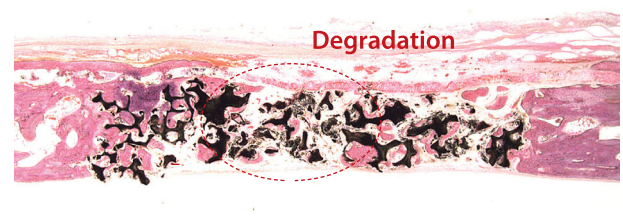
In Vitro Dissolution Test



Animal Test

12 weeks follow up in rabbit calvaria model

OSTEON™



OSTEON™ II

OSTEON™

Applications

- Ridge augmentation
- Extraction site
- Cystic cavities
- Sinus lift
- Periodontal defect

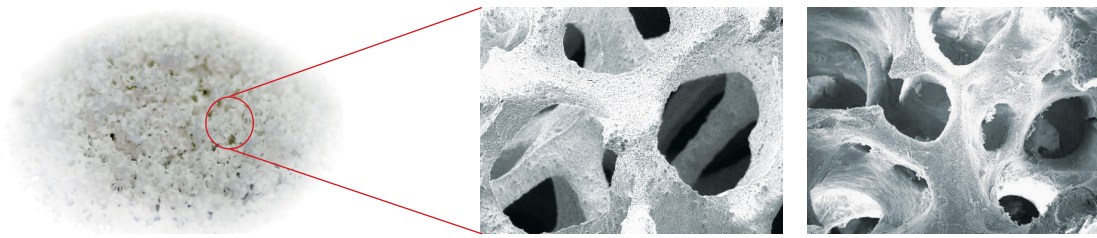
Composition

100% Synthetic bone graft : HA scaffold coated with β-TCP

OSTEON™ = HA 70% + β-TCP 30%

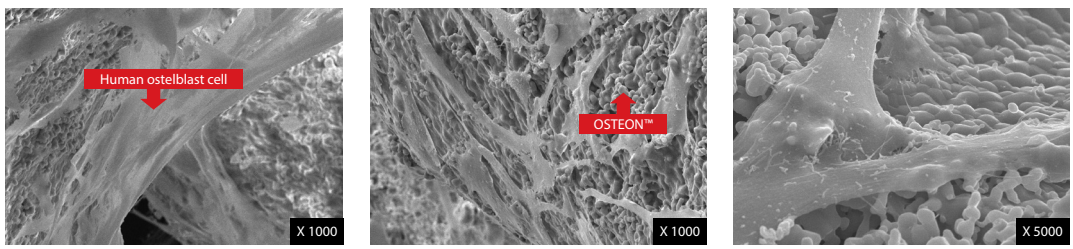
Characteristics of OSTEON™

- 100% synthetic bone graft
- Interconnected porous structure similar to that of human cancellous bone
- Osteoconductive synthetic bone graft



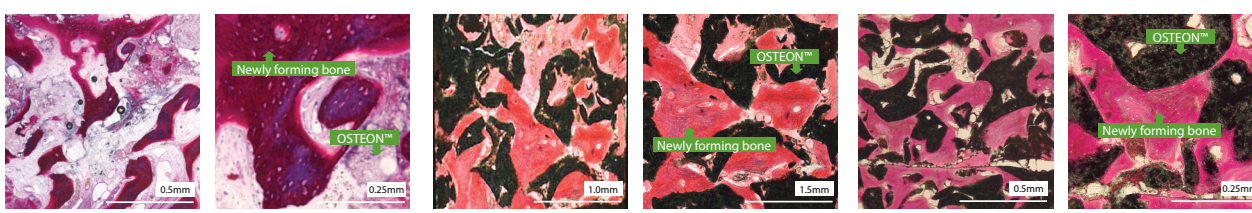
OSTEON™ Human bone

Cell Adhesion



Osteoblasts were well attached and spreaded on OSTEON™ surface

Human Histology



6.5 months after sinus graft surgery

OSTEON™ area = 1.24mm² (17.1%)
Newly forming bone area = 1.63mm² (22.7%)

10 months after sinus graft surgery

OSTEON™ area = 3.04mm² (35.5%)
Newly forming bone area = 2.38mm² (27.7%)

21 months after sinus graft surgery

OSTEON™ area = 6.30mm² (40.4%)
Newly forming bone area = 5.12mm² (33.0%)

OSTEON™ II Collagen

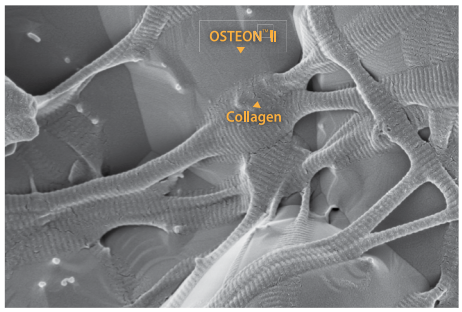
Applications

- Simple grafting(volume up)
- Ridge augmentation
- Extraction site & osteotomy
- Cystic cavities
- Periodontal defect

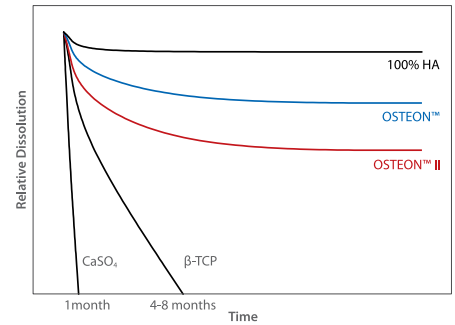
Characteristics of OSTEON™ II Collagen

- Bone void filler composed of synthetic bonegraft(OSTEON™ II) and natural type I collagen
- Moldable to various defect shape after being wet
- Easy handling, thus shortened operation time
- OSTEON™ II is highly resorbable due to higher β-TCP content(HA:β-TCP=30:70)
- Collagen is absorbed over several weeks after helping the initial shaping

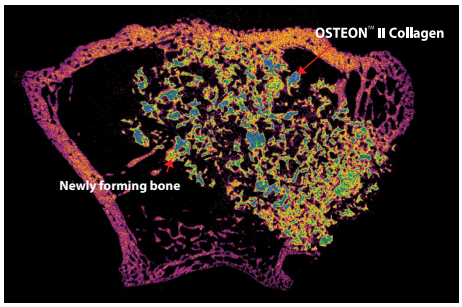
Microstructure



In Vitro Dissolution



Animal Test



- Animals : New zealand white rabbit
- Implantation area: Femur
- Period : 6 weeks
- CT image

OSTEON™ Collagen

Applications

- Ridge augmentation
- Extraction site & osteotomy
- Cystic cavities
- Sinus lift
- Periodontal defect

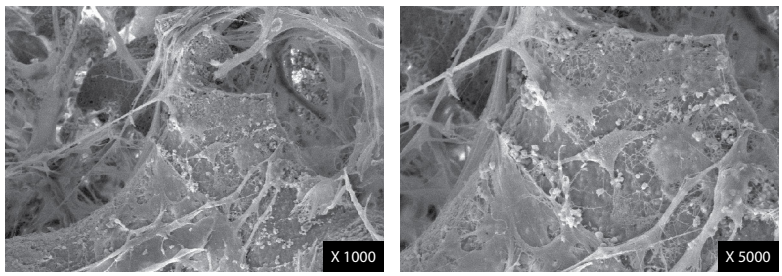
Description

OSTEON™ Collagen is a bone void filler composed of synthetic bone(OSTEON™) and natural type I collagen

Characteristics of OSTEON™ Collagen

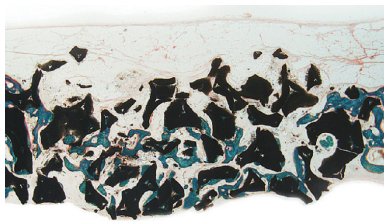
- Collagen coating enables easy handling, and thus shortened operation time
- Moldable to various defect shape after being wet
- Collagen dissolves after helping the initial handling
- Excellent new bone formation and space maintenance
- Hemostatic function
- Highly pure type I collagen derived from bovine tendon

Cell Adhesion Test



Osteoblasts spread well on the OSTEON™ Collagen

Animal Test



- Animals : new zealand white rabbit
- Implantation area: calvaria
- Period : 8 weeks
- Staining method : goldner trichrome

Bone Material Products

	Type	REF	Size(mm)	Volume(cc)
OSTEON™ III	Vial type	3G0205010 3G0205025 3G0205050 3G0205100 3G0205200	0.2~0.5	0.1/0.25/0.5 1.0/2.0
		3G0510010 3G0510025 3G0510050 3G0510100 3G0510200	0.5~1.0	0.1/0.25/0.5 1.0/2.0
		3G1020010 3G1020025 3G1020050 3G1020100 3G1020200	1.0~2.0	0.1/0.25/0.5 1.0/2.0
	Sinus (Syringe type)	3G0510050S 3G1020050S	0.5~1.0 1.0~2.0	0.5
	Lifting (Syringe type)	3G0205025L 3G0510025L	0.2~0.5 0.5~1.0	0.25

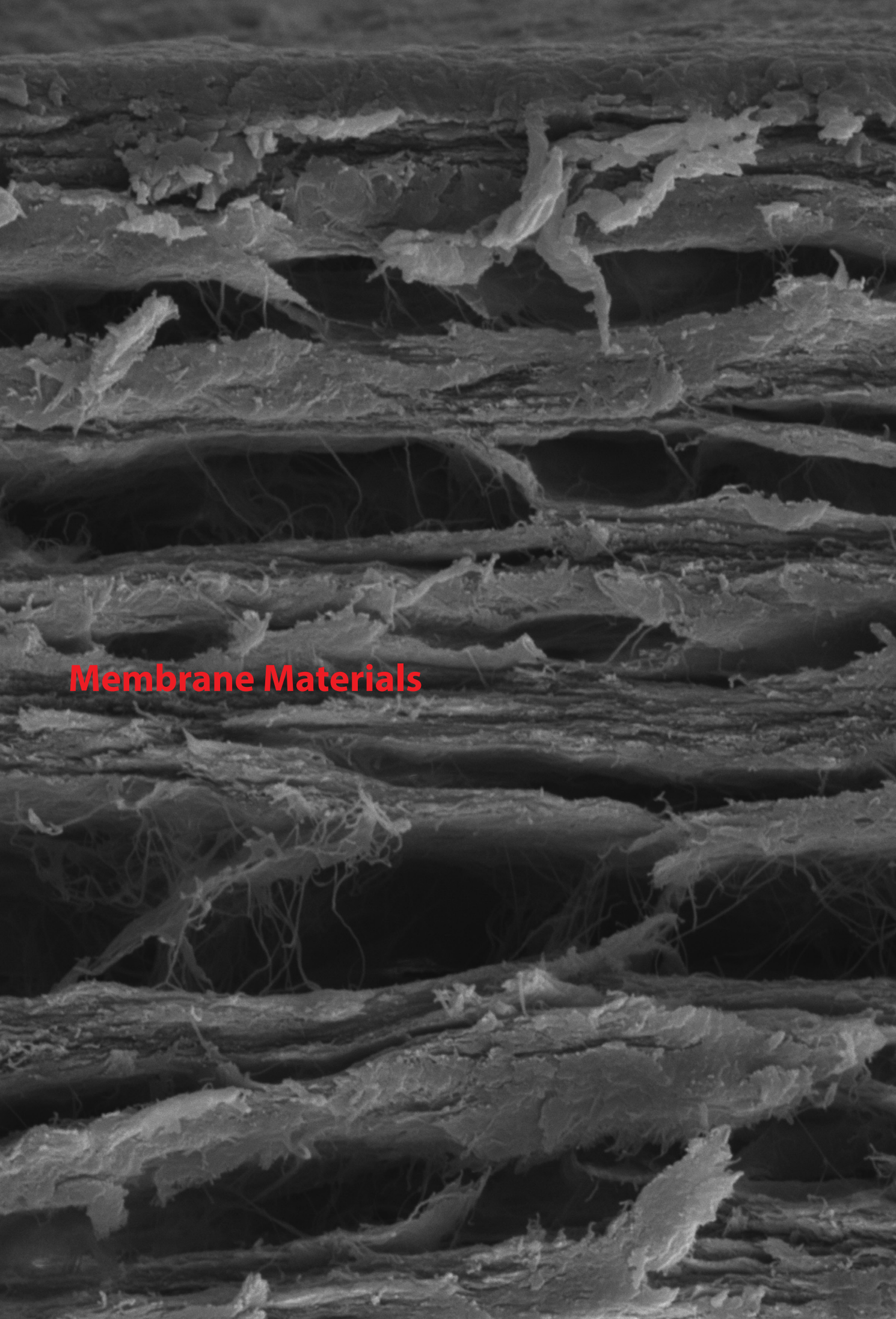
	Type	REF	Size(mm)	Volume(cc)
OSTEON™ II	Vial type	DT7G0205010 DT7G0205025 DT7G0205050 DT7G0205100 DT7G0205200	0.2~0.5	0.1/0.25/0.5 1.0/2.0
		DT7G0510010 DT7G0510025 DT7G0510050 DT7G0510100 DT7G0510200	0.5~1.0	0.1/0.25/0.5 1.0/2.0
		DT7G1020010 DT7G1020025 DT7G1020050 DT7G1020100 DT7G1020200	1.0~2.0	0.1/0.25/0.5 1.0/2.0
	Sinus (Syringe type)	DT7G0510050SS DT7G1020050SS	0.5~1.0 1.0~2.0	0.5
	Lifting (Syringe type)	DT7G0205025LS DT7G0510025LS	0.2~0.5 0.5~1.0	0.25

Bone Material Products

	Type	REF	Size(mm)	Volume(cc)
OSTEON™	Vial type	GBG0305025 GBG0305050 GBG0305100 GBG0305200	0.3~0.5	0.25/0.5 1.0/2.0
		GBG0510025 GBG0510050 GBG0510100 GBG0510200	0.5~1.0	0.25/0.5 1.0/2.0
		GBG1020025 GBG1020050 GBG1020100 GBG1020200	1.0~2.0	0.25/0.5 1.0/2.0
	Sinus (Syringe type)	GBG0510SS GBG1020SS	0.5~1.0 1.0~2.0	0.5
	Lifting (Syringe type)	GBG0305LS GBG0510LS	0.3~0.5 0.5~1.0	0.25

	Type	REF	Size(mm)	Particle size(mm)
OSTEON™ II Collagen	Cylinder	OTCC 0605 M OTCC 0610 M	Ø6.0 x 5.0 Ø6.0 x 10.0	0.2~1.0

	Type	REF	Size(mm)	Particle size(mm)
OSTEON™ Collagen	Cylinder	GOCC 0605 GOCC 0610	Ø6.0 x 5.0 Ø6.0 x 10.0	0.5~1.0


Membrane Materials

Collagen graft

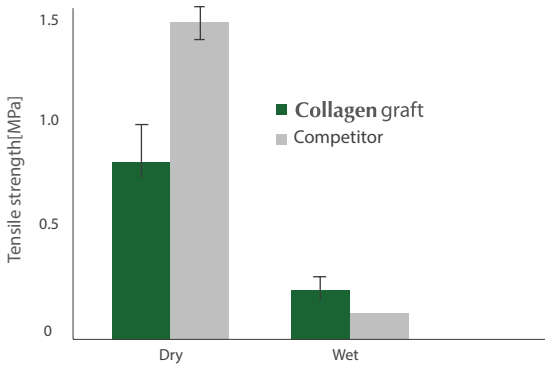
Applications

- Function of hemostasis, blood clot protection and wound site protection

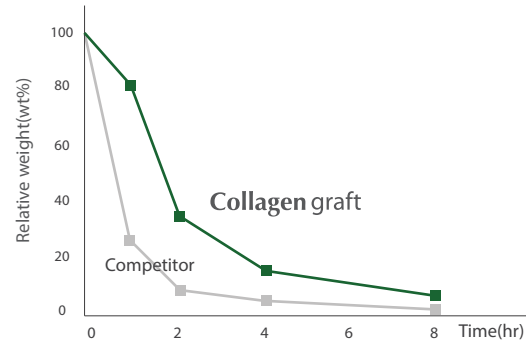
Characteristics of Collagen Graft

- Bilayer design : compact layer + porous layer
- Faster soft tissue healing by fast epithelization

Tensile Strength

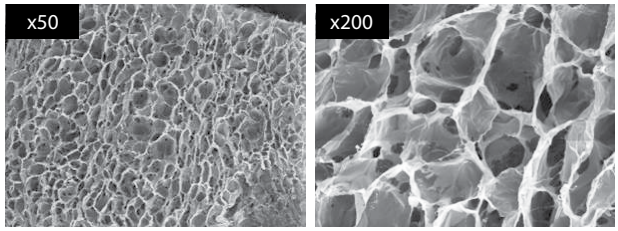


In vitro degradation

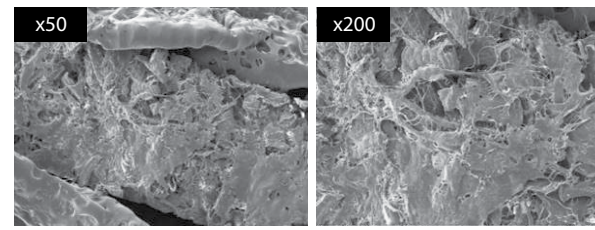


Microstructure

Porous Layer



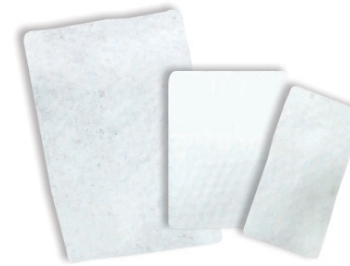
Dense Layer



Collagen Membrane-P

Applications

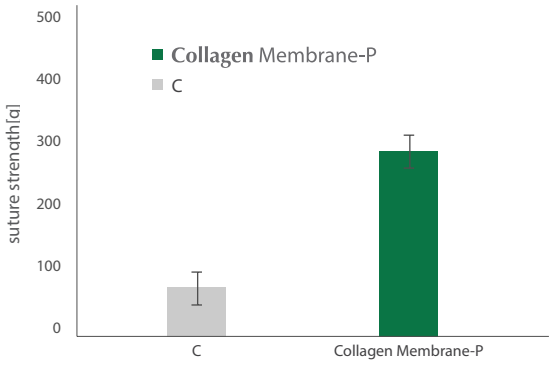
- Periodontal defects
- Ridge augmentation
- Sinus Lift
- GBR procedure



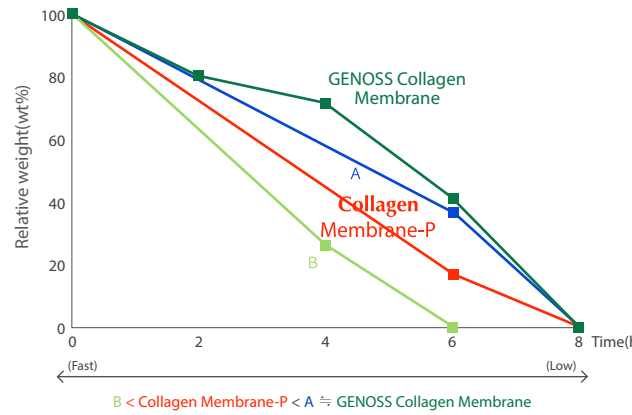
Characteristics

- Soft type resorbable barrier membrane with excellent manipulation
- Highly pure type I collagen
- Double-sided usage

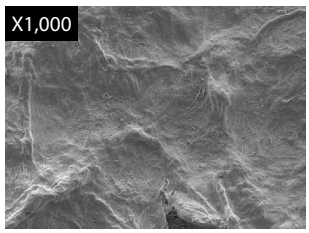
Suture strength



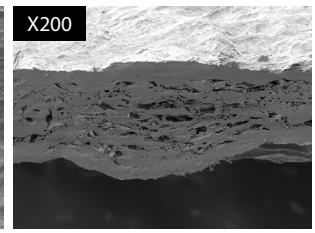
In vitro degradation



Microstructure

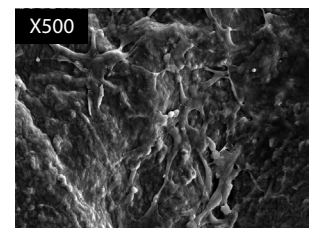


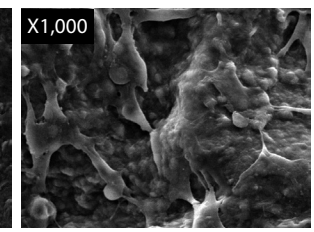
Surface



Cross section

Cell adhesion





MC3T3/E1, alpha MEM_5% FBS+1% As, Osteoblast cell

Collagen Membrane

Applications

Biodegradable barrier membrane for guided bone / tissue regeneration

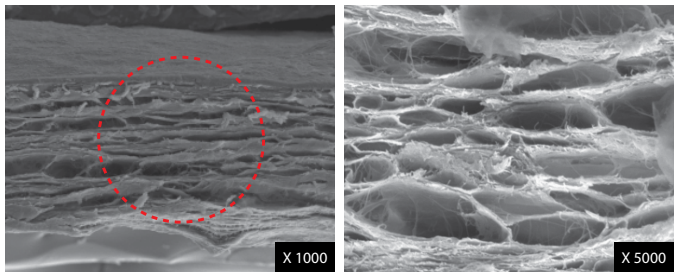
- Periodontal / infrabony defects
- Ridge augmentation
- Extraction sites(implant preparation / placement)
- Sinus lift

Characteristics of Collagen Membrane

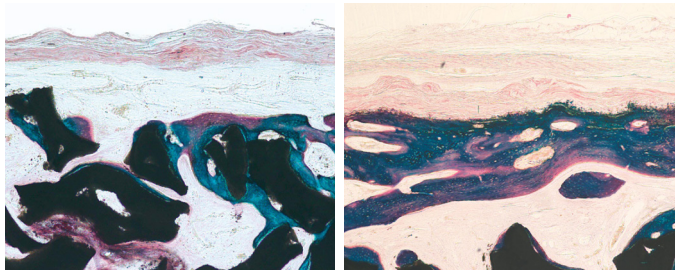
- Easy manipulation
- Dual-sided usage
- Barrier function lasting for 6 months
- Highly pure type I collagen derived from bovine tendon

- Thinner membrane(300㎛) with multiple layers for easy manipulation and sufficient mechanical strength in surgery
- Resorption period of 6 months to provide enough time for stabilizing graft materials and supporting bone growth
- Multiple-layered structure enables more effective bone regeneration by sparing enough space for hard tissue formation and facilitates proliferation of osteoblast

Microstructure

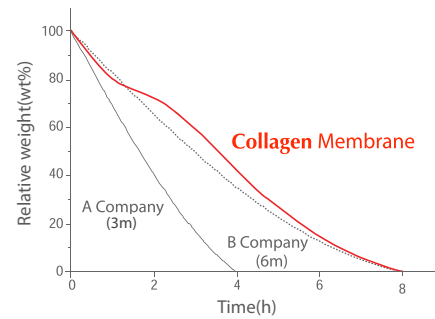


Animal test



Rabbit calvaria model, 6 weeks 12 weeks

In Vitro Dissolution



HA Collagen Membrane

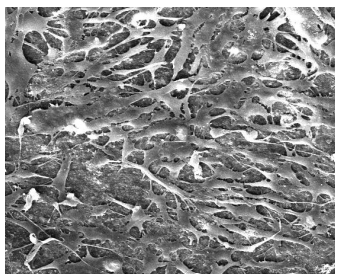
Applications

- Resorbable collagen membrane containing hydroxyapatite(HA) particles
- Periodontal / Infrabony defects
- Ridge augmentation
- Extraction sites
- Guided Bone Regeneration(GBR) procedure
- Sinus lift

Characteristics of HA Collagen Membrane

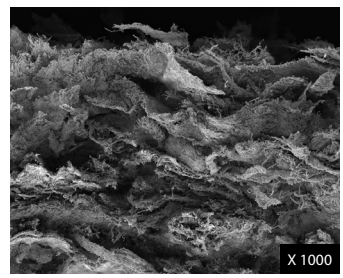
- Resorbable barrier membrane
- Osteoconductive due to HA particles
- New bone formation through the membrane
- Highly pure type I collagen derived from bovine tendon

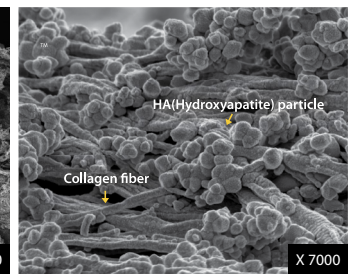
Cell adhesion



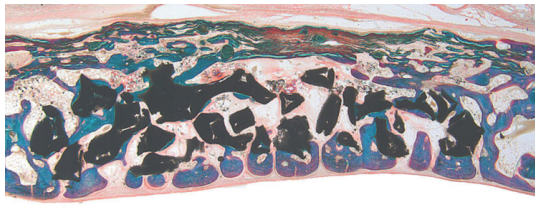
MC3T3 / E1 (Osteoblast cell X500)

Microstructure





Animal test



Rabbit calvaria model, 12 weeks

Membrane Material Products

	Type	REF	Size(mm)	Thickness(mm)
Collagen graft	Square type	CSD 1010 CSD 1020 CSD 1520 CSD 2030	10 X 10 10 X 20 15 X 20 20 X 30	3
	Round type	CSD 10 C	Ø10	3

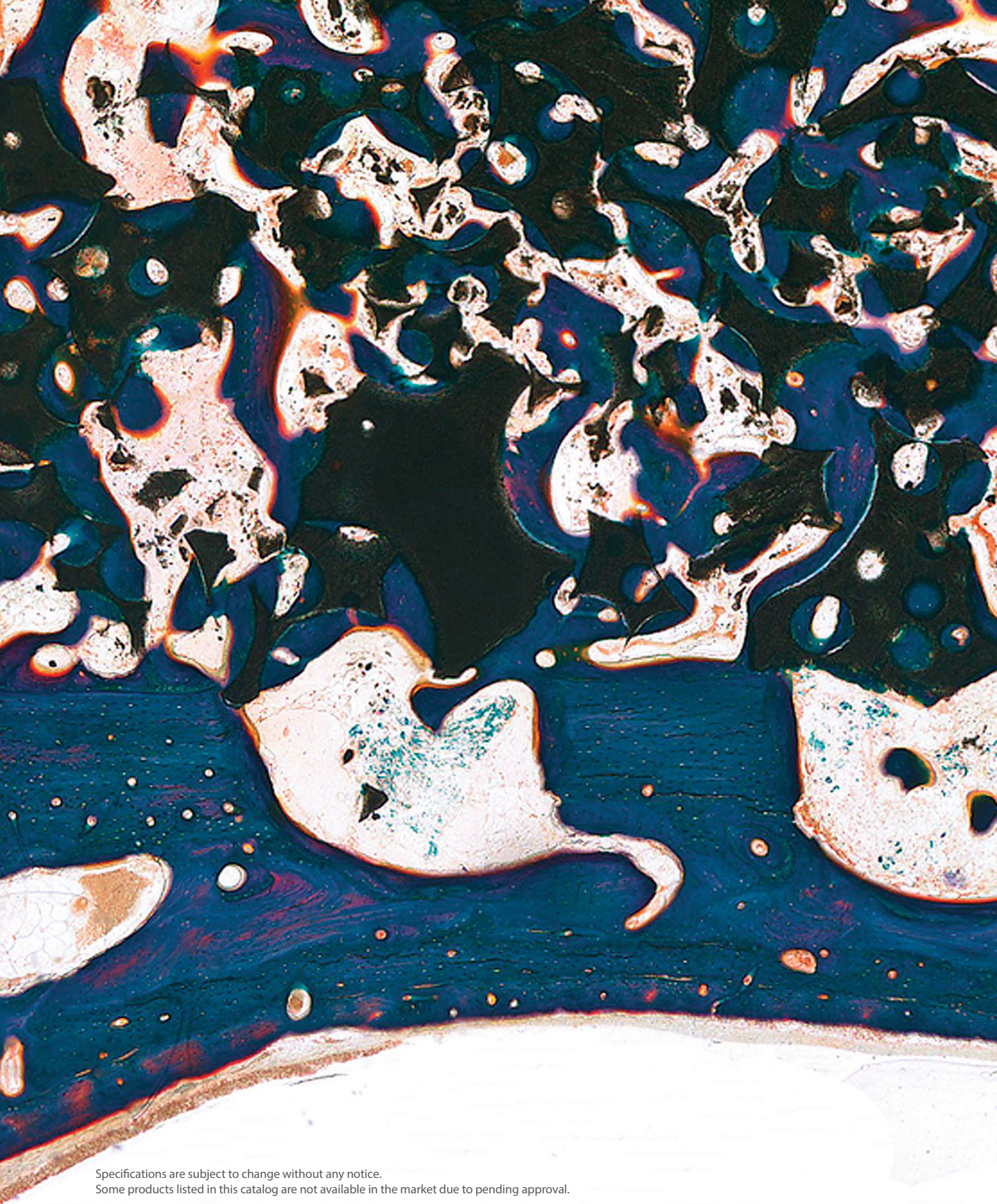
	Type	REF	Size(mm)	Thickness(mm)
Collagen Membrane-P	Square type	GPCM1020 GPCM1520 GPCM2030	10 X 20 15 X 20 20 X 30	0.3

	Type	REF	Size(mm)	Thickness(mm)
Collagen Membrane	Square type	GCM 1020 GCM 1520 GCM 2030	10 X 20 15 X 20 20 X 30	0.3

	Type	REF	Size(mm)	Thickness(mm)
HA Collagen Membrane	Square type	GCHM 1020 GCHM 1520 GCHM 2030	10 X 20 15 X 20 20 X 30	0.3

Dentium

For Dentists By Dentists



Specifications are subject to change without any notice.
Some products listed in this catalog are not available in the market due to pending approval.

Dentium
For Dentists By Dentists

GENOSS
For Patients & Doctors

CAT-B0401(REV.1, 1603)

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