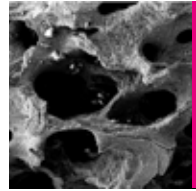


CELL ADHESION

The rough surface of human-like porcine particles facilitates the attachment of new cells.^{1,2}

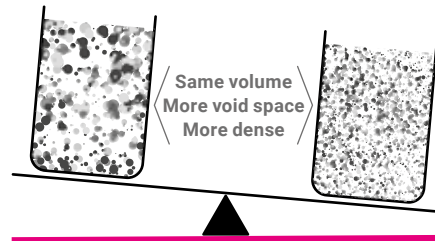


Rough surface, large pores, and high porosity enhance bone ingrowth.

CELL MIGRATION/INFILTRATION

Facilitates vascularization and bone ingrowth.

- Smartgraft's high porosity and large pores enhance vascularization, bone ingrowth and osteointegration of the implant after surgery.
- Smartgraft's macropores range from 0.1mm to 1.0mm.
- Native porous carbonate apatite possesses the natural pore structure for cell conduction.



SMARTGRAFT®	DBBM
1cc ~ 0.35g small	1cc ~ 0.5g small
1cc ~ 0.23g large	1cc ~ 0.34g large

REGENERATION

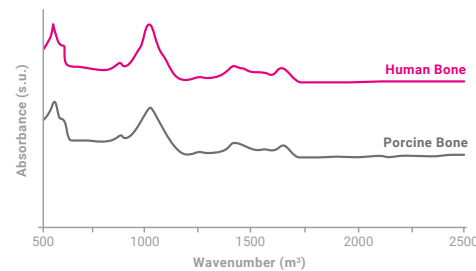
Native porcine graft provides a human-like structure for balanced remodelling.⁹

The anorganic bone mineral matrix has interconnections that reduce the bulk density of the graft and allows for more void space for the growth of new bones.¹⁰

As a porcine-derived bone, Smartgraft accelerates alveolar bone healing as compared to Deproteinized Bovine Bone Mineral (DBBM).^{11,12}

The proprietary purification process preserves carbonate apatite¹³, which has been shown to increase the bone forming activities of **osteogenic** cells and to enhance bioresorption of bone graft by **osteoclasts**.¹⁴⁻¹⁸

The **biocompatibility** is supported by the proprietary purification process of the graft.¹⁹



IR Spectra for human and porcine bones

LITERATURE

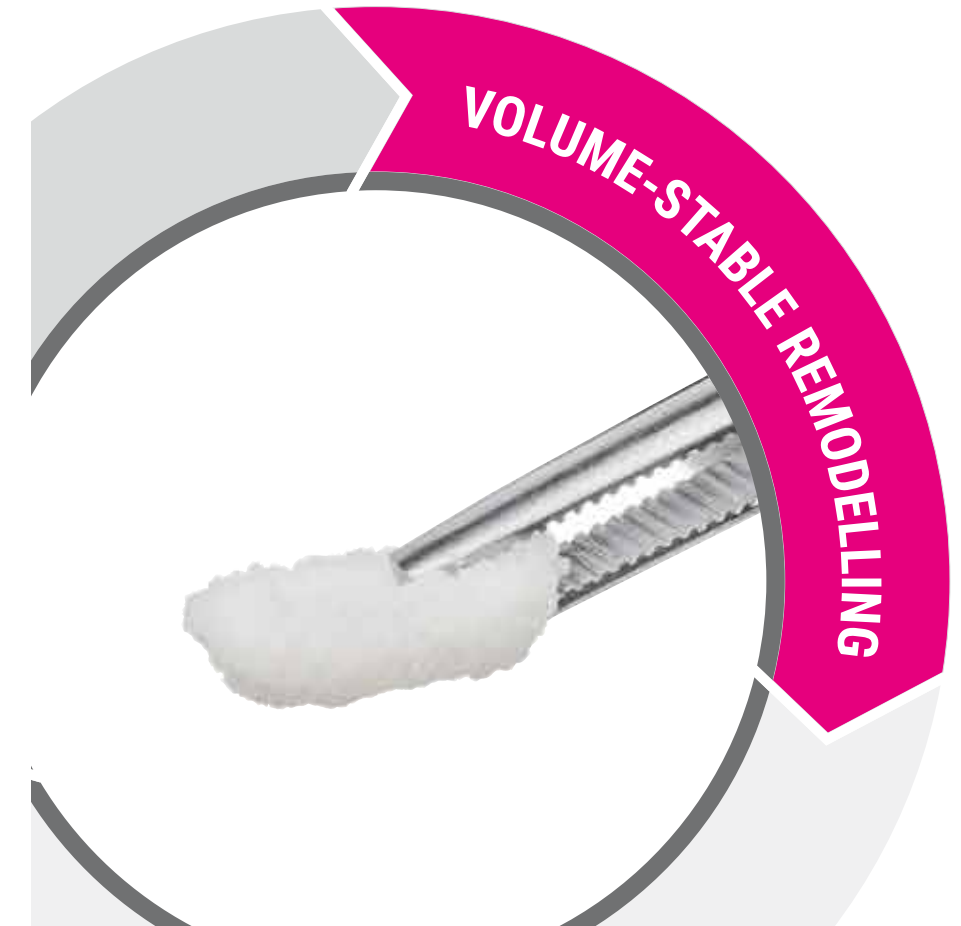
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Note: Smartgraft is a registered brand of Regedent AG and manufactured by Collagen Matrix Inc. HYADENT BG is a registered brand and manufactured by BioScience GmbH. Smartbrane is a registered brand and manufactured by Regedent AG

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SMARTGRAFT

Human-like native porcine graft



SIX REASONS

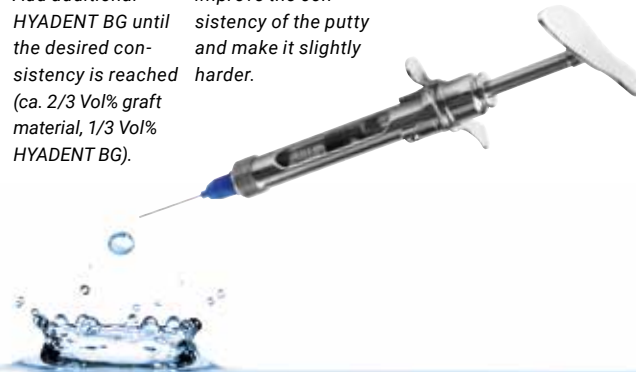
TO ADD HYADENT BG TO SMARTGRAFT

- 1 Sticky bone can be prepared with this out-of-the box gel and Smartgraft in 3 minutes.
- 2 As hydrophilic agent, hyaluronic acid (HA) stabilizes blood clot and attracts growth factors to support and accelerate bone formation.²⁰⁻²³
- 3 HA supports angiogenesis.²⁴
- 4 HA's high molecular weight reduces swelling and discomfort while supporting scar-less healing.²⁵
- 5 HA has natural bacteriostatic properties.²⁶
- 6 HA's special formulation remains present throughout the various phases of the healing process due to its slow degradation pattern (several weeks).²²

Preparation of stable graft material:



- Step 1:**
- Place bone substitute granules into a dish.
 - Hydrate using physiological solution or blood.
 - Remove any excess fluid.
- Step 2:**
- Add HYADENT BG to the hydrated bone substitution material.
- Step 3:**
- Mix using a spatula.
 - Repeat steps 2 & 3: Add additional HYADENT BG until the desired consistency is reached (ca. 2/3 Vol% graft material, 1/3 Vol% HYADENT BG).
- Step 4:**
- Keeping the putty at room temperature for 3-5 minutes may improve the consistency of the putty and make it slightly harder.
- Step 5:**
- Apply putty on to the defect.



FOUR REASONS

TO USE SMARTBRANE WITH SMARTGRAFT

- 1 Smartbrane ensures adequate tensile strength to safely maintain bone graft stability and structure.²⁷
- 2 Smartbrane is adaptable to bony surfaces without sticking to the graft or the instrument.³¹
- 3 Smartbrane has a resorption time of 8-12 weeks that can even be extended with Hyadent BG by several weeks.^{28, 29}
- 4 Smartbrane supports blood clotting and cell attachment.^{1, 3, 30}



SMARTBRANE rehydrated: excellent adaptation to surfaces without sticking to graft or instrument.

YOUR REGENERATIVE OPTIONS FOR YOUR INDICATIONS

INDICATIONS	SMARTGRAFT	SMARTBRANE	HYADENT BG
Root coverage with CTG			1 x 1.2 ml
Intraosseous defect (1-3 walls) Furcation	0.25 – 1.0 mm granules	15 x 20 mm	1 x 1.2 ml
Fenestration defect	0.5 cc or 1 cc of fine particles	20 x 30 mm	1 x 1.2 ml
Implant dehiscence	0.5 cc or 1 cc of fine particles	15 x 20 mm	1 x 1,2 ml
Extraction socket	1.0 cc of fine particles	10 x 10 mm or 15 x 20 mm	1 x 1.2 ml
Vertical / horizontal augmentation	2.0 cc of large particles	20 x 30 mm or 30 x 40mm	1 x 1.2 ml
Ridge preservation	2.0 cc of large particles	30 x 40mm	1 x 1.2 ml
Sinus floor elevation	2.0 cc of large particles	15 x 20mm / 20 x 30 mm	1 x 1.2 ml
Protection Schneiderian membrane		15 x 20 mm or 20 x 30 mm	1 x 1.2 ml

AVAILABLE PRODUCTS

SMARTGRAFT

Size	Article number
0.50 cc / 0.25 – 1.00 mm	0114.101
1.00 cc / 0.25 – 1.00 mm	0114.102
2.00 cc / 0.25 – 1.00 mm	0114.103
4.00 cc / 0.25 – 1.00 mm	0114.105
1.00 cc / 1.00 – 2.00 mm	0114.112
2.00 cc / 1.00 – 2.00 mm	0114.113
0.25 cc / 0.25 – 1.00 mm syringe	0114.450
0.50 cc / 0.25 – 1.00 mm syringe	0114.451



SMARTBRANE

Size	Article number
10 x 10 mm	0121.200
15 x 20 mm	0121.201
20 x 30 mm	0121.202
30 x 40 mm	0121.203



hyADENT BG

Size	Article number
2 x 1.2 ml ampulla	BS091

