bone & tissue regeneration

botiss biomaterials

Product Catalog

Dental bone and tissue regeneration













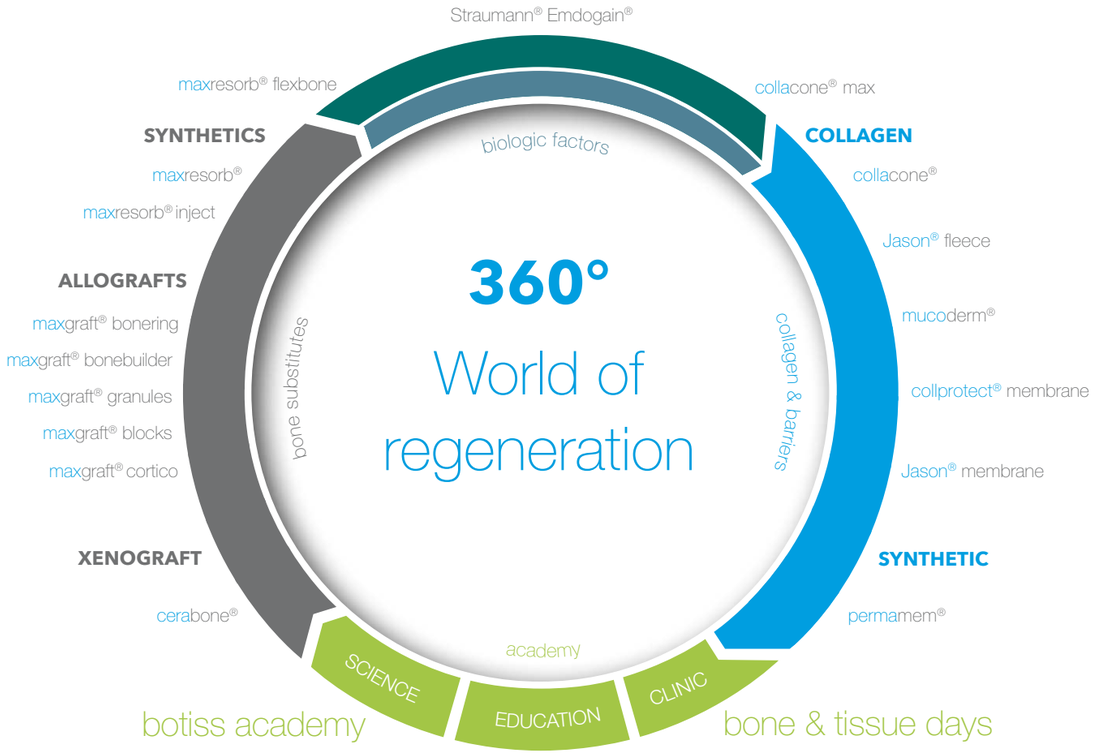
soft tissue

education

hard tissue

biomaterials

botiss biomaterials system



Development / Production / Distribution

cerabone®

Natural bovine bone graft

maxgraft® cortico

Processed allogenic bone plate

maxgraft®

Processed allogenic bone graft

maxgraft® bonebuilder

Patient matched allogenic bone implant

maxgraft® bonering

Processed allogenic bone ring

maxresorb® inject

Synthetic injectable bone paste

maxresorb®

Synthetic biphasic calcium phosphate

maxresorb® flexbone

Flexible blocks (CaP / Collagen composite)

Straumann® Emdogain®

Enamel matrix derivative

collacone® max

Flexible cone (CaP / Collagen composite)

collacone®

Collagen hemostat (Cone)

Jason® fleece

Collagen hemostat (Sponge)

mucoderm®

3D-stable soft tissue (Collagen) graft

collprotect® membrane

Native collagen membrane

Jason® membrane

Native pericardium GBR / GTR membrane

permamem®

High-density PTFE barrier membrane

bone & tissue regeneration

botiss biomaterials

360° – the botiss regeneration system:
Innovation, Safety, Reliability, and Aesthetics

botiss biomaterials offers you a unique systematic BTR approach – the complete regenerative biomaterial portfolio for Implantology, Oral and CMF Surgery, and Periodontology at hand.

We all know – no single bone graft or soft tissue biomaterial can suit all medical needs, biological situations, and indications. Factors, such as indication, age, hygiene, biotype, bone height, and treatment plan, require a sophisticated approach with different, coordinated products.

To achieve optimal results, we offer you the botiss regeneration system. It includes all long-term proven biological materials (e.g., bovine, synthetic, allografts, collagen, granules, blocks, membranes, and soft tissue matrices), which can be used in various combinations for each specific indication. All products are manufactured according to the highest quality standards and are strictly biological (i.e., no chemical cross-linking).
Patient's safety, ease of use and reliable treatment results – these are your and our first priorities. The products of the botiss regeneration system have proven their success in terms of safety, efficacy, and reliability in a multitude of preclinical and clinical studies and, most importantly, in the daily clinical work, with hundreds of thousands of patients worldwide.

We substantially invest in research and education. Unique innovations, such as mucoderm®, maxgraft® bonebuilder, and maxresorb® flexbone, the concept of high-quality learning and education with the botiss academy, and our international bone & tissue days are the results of our partnership with world-wide renowned academic research institutes, global opinion leaders, and practitioners in their daily clinical environment.

botiss biomaterials is one of the leading companies in the field of dental bone and tissue regeneration. The botiss regeneration system is available in over 100 countries world-wide via a global network of distribution partners and employees, who are committed experts in the field of oral surgery and implantology.

botiss is an innovative, clinically oriented biotech company headquartered in Berlin, with R&D and production sites in Germany, Austria, and Great Britain. One focus lies on dental regeneration.

We proudly welcome you to the botiss regeneration system community. We invite you to share your experiences and suggestions with us, which are precious to further improve our products or develop new product concepts.

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bone substitutes

cerabone®

maxresorb®

maxresorb® inject

collacone® max

maxgraft®

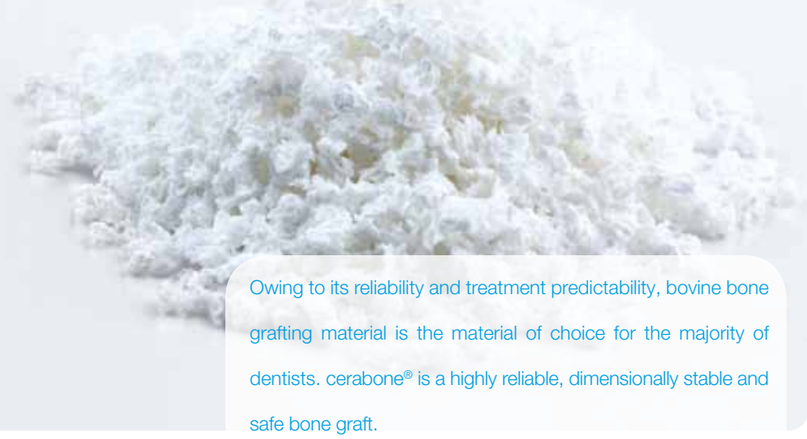
maxgraft® bonering

maxgraft® cortico

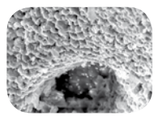
maxgraft® bonebuilder

cerabone®

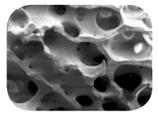
Natural bovine bone graft



Owing to its reliability and treatment predictability, bovine bone grafting material is the material of choice for the majority of dentists. cerabone® is a highly reliable, dimensionally stable and safe bone graft.



SEM: cerabone® microporosity; ideal surface roughness for a faster cell attachment



SEM: cerabone® macro- and micropores resembling human bone

cerabone® is derived from the mineral phase of bovine bone, which shows strong resemblance to the human bone with regard to chemical composition, porosity, and surface structure. The pronounced hydrophilicity of the cerabone® surface supports a fast uptake of blood or saline, thus improving handling. Likewise, its three-dimensional porous network enables a fast penetration and adsorption of blood and serum proteins and serves as a reservoir for proteins and growth factors.

The unique manufacturing process based on high-temperature heating removes all organic and potentially antigenic components, making the material absolutely safe and free of proteins. cerabone® is the leading natural bovine bone grafting material of German origin, as demonstrated by its clinical and scientific success.

cerabone® excellent biofunctionality; superior hydrophilicity and blood uptake

cerabone® granules

Art.-No.	Particle Size	Content
1510	0.5 – 1.0 mm	1 × 0.5 ml
1511	0.5 – 1.0 mm	1 × 1.0 ml
1512	0.5 – 1.0 mm	1 × 2.0 ml
1515	0.5 – 1.0 mm	1 × 5.0 ml
1520	1.0 – 2.0 mm	1 × 0.5 ml
1521	1.0 – 2.0 mm	1 × 1.0 ml
1522	1.0 – 2.0 mm	1 × 2.0 ml
1525	1.0 – 2.0 mm	1 × 5.0 ml

cerabone® block

Art.-No.	Dimension	Content
1720	20 × 20 × 10 mm	1 × block

Properties

- Natural bovine bone grafting material
- Long-term volumetric stability
- No foreign body or inflammatory reaction
- Rough surface, optimal cell adhesion, and blood absorption
- Interconnective porosity for rapid revascularization
- Safe and sterile
- Easy handling

Histology of cerabone® six months after sinus lift: Optimal integration and bone healing with cerabone®

Indications:

Implantology,
Periodontology and
Oral and CMF Surgery

- Sinus lift
- Horizontal and vertical augmentation
- Intraosseous defects
- Peri-implant defects
- Extraction sockets
- Furcation defects

cerabone® block

maxresorb®

Synthetic biphasic calcium phosphate

maxresorb® is an innovative, safe, reliable, and fully synthetic bone substitute material that is characterized by controlled resorption properties and outstanding handling characteristics.

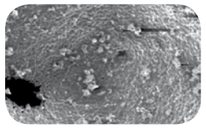
maxresorb® is composed of 60% hydroxyapatite (HA) and 40% beta-tricalcium phosphate (β-TCP).
The unique synthesis-based production process ensures a completely homogenous distribution of both mineral phases.
The peculiar composition of maxresorb® promotes the fast formation of new vital bone, ensuring a long-term mechanical and volume stability.
The osteoconductivity of maxresorb® is achieved by a matrix of interconnecting pores (with a size ranging between 200 and 800 µm) and a very high porosity of approx. 80%. The high microporosity and nano-structured surface facilitate the uptake and adsorption of blood, proteins, and stem cells. The macropores are ideal for the ingrowth of osteogenic cells and the bony integration.

Histology of maxresorb® six months after sinus lift: Optimal integration and bone healing with maxresorb®

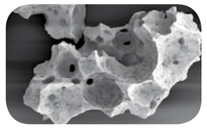
The ideal hydrophilicity of maxresorb® granules ensures excellent handling characteristics when in contact with blood

Properties

- 100% synthetic and resorbable
- Volume and mechanical graft stability
- 60% HA/40% β-TCP
- Osteoconductive
- Ultra-high interconnected porosity
- Safe, reliable and sterile
- Hydrophilic surface



SEM: Structured surface and porosity



SEM: maxresorb® particle

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Sinus lift
- Ridge augmentation
- Intraosseous defects
- Extraction sockets
- Osseous defects
- Furcation defects

Product Specifications

maxresorb® granules

Art.-No.	Particle Size	Content
20005	0.5 – 1.0 mm (S)	1 × 0.5 ml
20010	0.5 – 1.0 mm (S)	1 × 1.0 ml
20105	0.8 – 1.5 mm (L)	1 × 0.5 ml
20120	0.8 – 1.5 mm (L)	1 × 2.0 ml

maxresorb® blocks

Art.-No.	Dimension	Content
21211	20 × 10 × 10 mm	1 × block
21221	20 × 20 × 10 mm	1 × block

maxresorb® inject

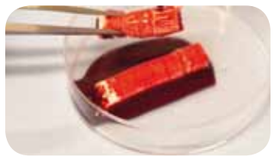
Synthetic injectable bone paste

maxresorb® inject is a unique and highly innovative, injectable bone graft paste, with excellent resorption properties.

The gel-based composite includes active hydroxyapatite and granules (composed of 60%HA and 40% β-TCP).
While maxresorb® promotes the fast formation of new vital bone and maintains the mechanical graft stability, maxresorb® inject is gradually replaced by mature new bone.
The highly viscous maxresorb® inject paste allows the perfect shaping, molding, fitting, and complete bone bonding to the surrounding bone surface of the defect. maxresorb® inject is a non-hardening synthetic bone paste.

maxresorb® inject paste

Unique Regenerative Four-Phase Activity



maxresorb® inject ideal blood adherence

water/gel
carrier-guided vascularization

active HA
cell activation, bioactive regeneration

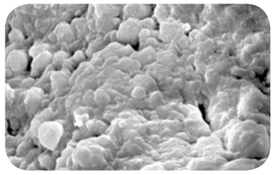
biphasic Ca/P
balanced resorption and bone formation, volume stability

maxresorb® inject
unique, injectable, synthetic bone graft

Properties

- Injectable and easy handling
- Non-hardening bone graft paste
- Synthetic, resorbable, and safe
- Viscous and moldable
- Active hydroxyapatite crystals
- 60% HA/40% β-TCP granules
- Osteoconductive
- Ultra-high interconnected porosity

maxresorb® inject - Easy handling and good moldability



SEM: maxresorb® inject surface structure

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Sinus lift
- Intraosseous defects
- Extraction sockets
- Osseous defects
- Furcation defects

Product Specifications

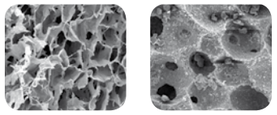
maxresorb® inject

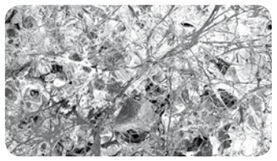
Art.-No.	Unit	Content
22005	1 × syringe	1 × 0.5 ml
22010	1 × syringe	1 × 1.0 ml
22025	1 × syringe	1 × 2.5 ml

collacone® max

Calcium phosphate collagen cone

collacone® max is a biomimetic composite material that resembles the native human bone in its basic biphasic composition of collagen and calcium phosphate (maxresorb® granules).

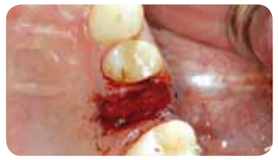




SEM: collacone® max (bottom) and its constituents: maxresorb® (top right) and collagen (top left)

While the collagenous phase provides biological signals that promote the wound healing within the socket, the mineral hydroxyapatite phase ensures primary stability and complete resorption at a controlled, slow resorption rate.

collacone® max is designed to fit into the void of the extraction socket and does not require rehydration before application. collacone® max may be applied both as a protective medium and temporary void filler in the extraction socket when performing an early implantation, or as a regenerative material that assists new bone formation in the case of delayed implantation.



Clinical application of collacone® max, covered with mucoderm®

Properties

- Has a form-fitted cone shape for an easy application
- Adapts to the defect contours
- Maintains space and avoids soft tissue collapse
- Reduces the need for subsequent augmentative procedures
- Improves the aesthetic outcome of the final prosthesis

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Socket and ridge preservation
- Intraosseous defects
- Peri-implant defects
- Defects after root resection, apicoectomy and cystectomy

Product Specifications

collacone® max

Art.-No.	Shape	Dimension	Content
250001		height ~16 mm width on top ~11 mm, bottom width ~7 mm	1 x cone

Bundle collacone® max and mucoderm® soft tissue punch

Art.-No.	Content
257110	1 x collacone® max 1 x mucoderm® punch (Ø 10 mm)

maxgraft®

Processed human allograft

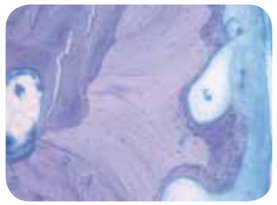
maxgraft® is a sterile, high-safety allograft product, derived from human-donor bone, processed by Cells+Tissuebank Austria (C+TBA). C+TBA, a high-quality bone bank, is regulated, audited, and certified by the Austrian Federal Office for Safety in Health Care and fulfills the highest EU safety standards.

Histology of maxgraft® five months after implantation: Optimal integration and bone remodelling with maxgraft®

Structure of maxgraft® block

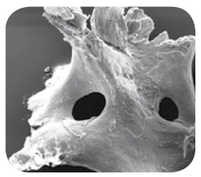
For experienced oral and maxillofacial surgeons, allograft bone blocks for block augmentation are the only real alternative to harvesting the patient's own autologous bone. This helps preventing well known risks such as donor-site morbidity, infection, post-operative pain, and bone-stability loss.

The biological regeneration capability of maxgraft® allows for excellent clinical outcomes.



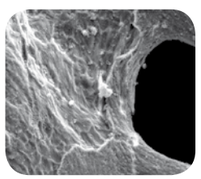
Properties

- Preserved biomechanical properties
- Sterile – no antigenic effects
- Storable at room temperature for five years
- Osteoconductive properties supporting natural and controlled tissue remodelling



SEM: maxgraft® particle

Mixability with blood



SEM: maxgraft® mineralized collagen fibers

Product Specifications

maxgraft® cancellous granules

Art.-No.	Particle Size	Content
30005	0.5 – 2.0 mm	1 × 0.5 ml
30010	0.5 – 2.0 mm	1 × 1.0 ml
30020	0.5 – 2.0 mm	1 × 2.0 ml
30040	0.5 – 2.0 mm	1 × 4.0 ml

maxgraft® cortico-cancellous granules

Art.-No.	Particle Size	Content
31005	0.5 – 2.0 mm	1 × 0.5 ml
31010	0.5 – 2.0 mm	1 × 1.0 ml
31020	0.5 – 2.0 mm	1 × 2.0 ml
31040	0.5 – 2.0 mm	1 × 4.0 ml

maxgraft® blocks

Art.-No.	Dimension	Content
31111	uni-cortical 10 × 10 × 10 mm	1 × block
31112	uni-cortical 20 × 10 × 10 mm	1 × block
32111	cancellous 10 × 10 × 10 mm	1 × block
32112	cancellous 20 × 10 × 10 mm	1 × block

Indications:

Implantology, Periodontology and Oral and CMF Surgery

maxgraft® granules:

- Localized augmentation of the ridge for future implant placement
- Ridge augmentation
- Osseous defects
- Extraction sockets
- Elevation of maxillary sinus floor
- Repair of intrabony periodontal defects

maxgraft® blocks:

- A predictable and highly effective alternative to traditional block grafting
- Ridge augmentation

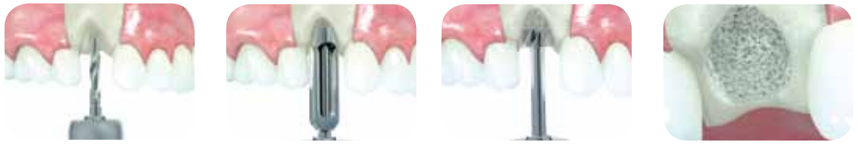
maxgraft® bonering

Processed allogenic bone ring

The maxgraft® bonering technique

maxgraft® bonering is a prefabricated ring of processed allogenic donor bone, which is placed press-fit into a trephine drill-prepared ring bed. At the same time, an implant is inserted into the ring. The bony integration of both maxgraft® bonering and the implant occurs via the surrounding vital bone.

Ring bed preparation



After the determination of the position of the implant with the planator tip, the ring bed is prepared with the trephine. Subsequently, the planator allows an even paving of the local bone for optimal contact with maxgraft® bonering and, in addition, removes the cortical layer; this ensures an improved graft revascularization.

The maxgraft® bonering technique allows bone augmentation and implantation in a one-stage procedure. The technique is suitable for virtually all indications, including sinus lift with limited maxillary bone height.

The height of maxgraft® bonering is adjustable to the defect

The maxgraft® bonering technique enables vertical bone augmentation and direct implant insertion

Immediate implant insertion through maxgraft® bonering ensures primary stability of implant and graft

Compared to the classical two-stage augmentation with bone blocks, this technique reduces the entire treatment period by several months and saves the re-entry.

maxgraft® bonering is suitable for vertical and horizontal augmentation and promotes new bone formation, therefore simplifying the surgical treatment.

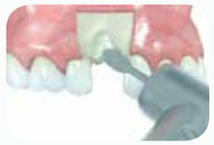
Advantages

- Simultaneous implant placement and bone augmentation
- No second surgical procedure
- Significant reduction of treatment time

www.botiss-bonering.com

One-stage bone augmentation and implant placement

Smoothing



Sharp edges should be smoothened to avoid soft tissue perforation and to support wound healing. Moreover, maxgraft® bonering should be covered with a slowly resorbable bone regeneration material (e.g., cerabone®) to fill the residual defect volume and to avoid potential adaption resorption of the graft.

Soft tissue management

After covering the graft with a collagen membrane (Jason® membrane), a tension-free suturing of the operation site must be applied to avoid tissue perforation and graft exposure.

Indications:

Implantology

- Vertical augmentation (in combination with horizontal augmentation)
- Single tooth gap
- Edentulous space
- Sinus lift

maxgraft® bonering surgical kit

With this surgical kit, botiss biomaterials provides all necessary instruments to apply the maxgraft® bonering technique. The kit includes two convenient sizes of trephines, which precisely match the maxgraft® bonering diameters. The planators allow the paving of the local bone to create a congruent and fresh contact surface of the implant area. The diamond disc and the diamond tulip can be used to shape maxgraft® bonering for an excellent adjustment to the local bone and for an improved soft tissue healing. Altogether, these instruments allow optimal preconditions for the bony ingrowth of maxgraft® bonering. All instruments are made of high-quality surgical steel.

trephine 7 mm | trephine 6 mm | planator 7 mm | planator 6 mm | diamond disc 10 mm | diamond tulip 3 mm

Product Specifications

maxgraft® bonering 3.3
(Height 10 mm,
recommended for implant diameters from 3.3 - 3.6 mm)

Art.-No.	Dimension	Content
33160	cancellous ring, Ø 6 mm	1 x
33170	cancellous ring, Ø 7 mm	1 x

maxgraft® bonering 4.1
(Height 10 mm, recommended for implant diameters from 4.1 mm)

Art.-No.	Dimension	Content
33174	cancellous ring, Ø 7 mm	1 x

33000	maxgraft® bonering surgical kit	1 set
33010	bonering fix	1 x

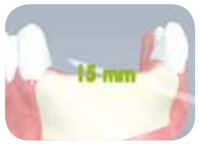
bonering fix

maxgraft® cortico
Shell technique with allogenic bone plates

maxgraft® cortico is a prefabricated plate made of processed allogenic bone. Similarly to the autogenous bone, it can be used for the shell technique.

maxgraft® cortico was developed to avoid the donor-site morbidity and to prevent the time-consuming harvesting and splitting of autologous cortico-cancellous bone blocks.

Preparation of the augmentation area

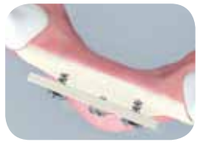


The proper size of the plate is estimated after the elevation of the mucosal flap or preoperatively using a digital planning software. Using a diamond disc, the plate is then cut extraorally.

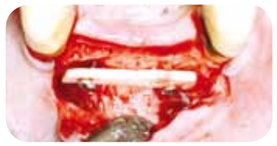
Indications:

- Vertical augmentation
- Horizontal augmentation
- Complex three-dimensional augmentations
- Single tooth gaps
- Fenestration defects

Fixation and adaption



The plate is positioned within a certain distance by predrilling through the plate and local bone; fixation is performed with osteosynthesis screws to create a fixed compartment. To prevent the perforation of the soft tissue, the sharp edges has to be removed, e.g., by using a diamond ball.



Augmentation of a frontal mandibular defect

Properties

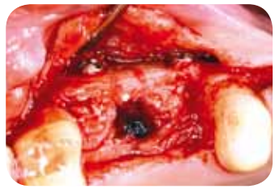
- Osteoconductive
- Natural and controlled remodelling
- Conserved biomechanical parameters
- Steril, no antigenic effect
- Five-year shelf life

www.botiss.com

The shell technique with maxgraft® cortico

Filling and wound closure

The space between local bone and cortical plate can be filled with a variety of different particulated bone grafting materials. Then, the augmentation area needs to be covered with a barrier membrane (Jason® membrane, collprotect® membrane) and a tension-free and saliva-proof closure must be applied.



Six months after transplantation, a superficial resorption of the plate can be seen; the stability, however, is maintained

Advantages

- Established augmentation technique with new material
- Significant reduction of operation time
- No donor-site morbidity
- No limitation of augmentation material

Product Specifications

maxgraft® cortico

Art.-No.	Dimension	Content
31251	cortical strut, 25 x 10 x 1 mm	1 x
31253	cortical strut, 25 x 10 x 1 mm	3 x 1

cortico trimmer

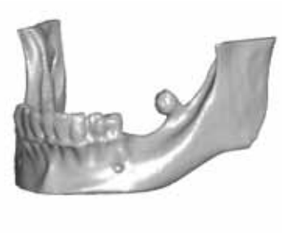
Art.-No.	Content
34000	cortico trimmer	1 x

Natural bone regeneration

To facilitate osteogenesis, allogenic particles can be used to fill the defect. The preserved human collagen provides an excellent osteoconductivity and enables a complete remodelling. Mixing with autologous chips or particulated PRF matrices can support the ossification.

maxgraft® bonebuilder
Customized allogenic bone block

maxgraft® bonebuilder is a customized allogenic bone transplant, which is individually adjusted to the bone defect. With maxgraft® bonebuilder, harvesting of autologous bone and manual adjustment of the obtained transplant is no longer required for the treatment of extensive defects. Donor site morbidity, operation time and costs can be significantly reduced.



The CT/DVT-data of the bone defect is transfered into a 3D model

The maxgraft® bonebuilder technology

In-house planning

botiss virtually designs the patient customized allogenic bone transplant based on the CT/DVT-scan of the bone defect. The design of the bone transplant undergoes a final inspection by the clinical user and is, by individual order, released for production. The botiss partner Cells+Tissuebank Austria receives a *.stl milling file and the patient matched allogenic bone transplant is produced under cleanroom conditions. The resulting bone block is ready for insertion into the defect with only minor adjustments.

Indications

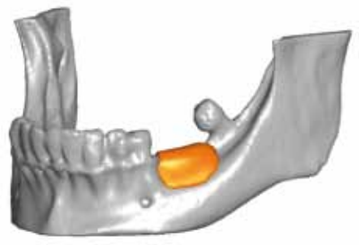
- Extensive bone defects
- Atrophic maxilla/mandibula
- Horizontal/vertical augmentation

Advantages

- Individualized allogenic bone transplant
- Significantly reduced operation time
- Improved wound healing

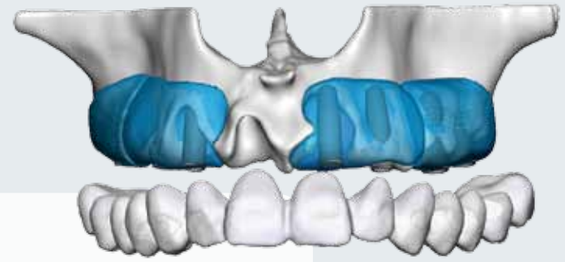
Based on this model botiss designs a virtual block, which matches the surface structure of the defect and allows stable implant insertion after augmentation

After placement, the maxgraft® bonebuilder block is fixed with osteosynthesis screws. Residual defect volume should be filled with bone regeneration material and the augmentation site should be covered with a collagen membrane.
The strong capillary action of the three-dimensional, porous trabecular bone network enables fast and efficient penetration of nutrients and blood, resulting in excellent handling, as well as reliable and predictable outcomes.



The customized maxgraft® bonebuilder block allows precise horizontal and vertical reconstruction of the atrophic ridge

The maxgraft® bonebuilder technology



The maxgraft® bonebuilder technology allows complex reconstruction in cases of extensive jaw atrophy

1. Upload of CT/DVT-data on www.botiss-bonebuilder.com

After registration, CT/DVT-data of the patient can be uploaded on the botiss server. All radiological data have to single-frame data images. The only data type suitable for 3D planning is DICOM (*.dcm).

2. Block design

botiss designers create a three-dimensional model of the radiological images and design a virtual bone transplant in consultation with the clinical user.

Each block is designed individually according to the defect and the desired dimension of the augmentation

3. Design quality check

The clinical user receives a 3D PDF file containing the virtually constructed maxgraft® bonebuilder block and has to confirm its design.

4. Individual order

The production of the block starts after the clinical user fills in the patient based order form for the bone block to the attention of botiss biomaterials.

5. Production of the individual bone block

At C+TBA the *.stl data of the design is imported into a milling machine and a block of maximally 23 x 13 x 13 mm is produced.

Product Specifications

maxgraft® bonebuilder

Art.-No.	Content
PMIa	Individual planning and production of a bone transplant max. dimensions 23 x 13 x 13 mm
PMIa 2	additional block(s) for this patient

www.botiss-bonebuilder.com

collagen & barriers

mucoderm®

Jason® fleece

collacone®

collprotect® membrane

Jason® membrane

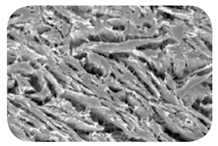
permamem®

titan pin set

mucoderm®

3D-stable soft tissue (collagen) graft

mucoderm® is a natural type I/III collagen matrix derived from porcine dermis that undergoes a multi-stage purification process, which removes all potential immunogens. The remaining matrix is a membrane that consists of collagen and elastin.



SEM: mucoderm®

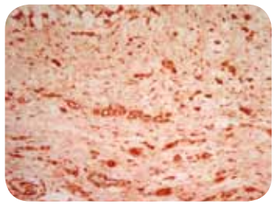
mucoderm® is integrated and remodelled into the patient's own soft tissue through a natural enzymatic process. The natural collagen structure of mucoderm, which is the result of a muti-step purification/ cleaning process, serves as scaffold for soft tissue cells and blood vessels. During the healing, the mucoderm matrix is vascularized and integrated into the surrounding tissue. mucoderm® represents a suitable and safe alternative to the autologous soft tissue graft for a variety of indications.

Easy handling properties of mucoderm® after rehydration with sterile saline

Properties

- Rapid revascularization and integration
- Soft tissue replacement without palatal autograft harvesting
- Complete remodeling into patient's own tissue
- Resorption time of approx. six to nine months
- Can be easily applied and fixed
- Can be cut into procedure-specific shape

After rehydration, mucoderm® can be cut into procedure-specific shape



Immunhistological analysis three months after implantation of mucoderm® in a mouse-model shows excellent vascularization

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Treatment of gingival recessions
- Soft tissue grafting in combination with GBR/GTR
- Broadening of attached gingiva
- Closure of extraction sockets
- Thickening of the periimplant soft tissue

mucoderm® soft tissue punch

Product Specifications

mucoderm®

Art.-No.	Size	Content
701520	15 × 20 mm	1 matrix
702030	20 × 30 mm	1 matrix
703040	30 × 40 mm	1 matrix
710210	Ø 10 mm	1 punch*

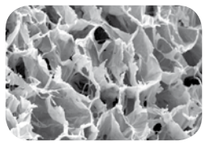
*Also available as bundle (Art.-No. 257110): mucoderm® soft tissue punch and collacone® max

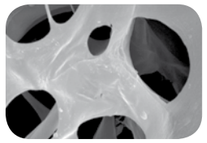
collacone®

Collagen hemostat (Cone)

collacone® is a wet-stable and moldable cone made of natural collagen. As a completely resorbable and hemostatic wound coverage, it is intended for application in fresh extraction sockets in the daily clinical practice.

SEM: collacone®





SEM: collacone® collagen fibers three-dimensional network

After tooth removal, the healing of an extraction socket requires the formation and maturation of a blood clot, followed by the infiltration of fibroblasts that replace the coagulum; finally, the application of a provisional matrix allows the formation of new bone tissue[1]. The spongy structure of collacone® ensures an easy and fast application in extraction sockets. Notably, the structure of the cone is maintained after insertion into the defect.

Indications:

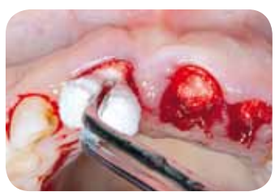
Implantology, Periodontology and CMF Surgery

- Closure of extraction sites
- Biopsy sites
- Minor oral wounds
- Control and stop of bleeding in extraction sockets or biopsy sites
- Internal sinus lift

Properties

- Resorption within two to four weeks
- Stabilization of blood clot and efficient local hemostasis
- Maintains integrity in the presence of blood and during application
- Wound protection
- Three-dimensional matrix for tissue ingrowth
- Controlled wound healing process
- Native collagen cone
- Promoting hemostasis

collacone® wet-stable, fast uptake of blood and stabilization of the blood coagulum



Clinical use of collacone®

Product Specifications

collacone®

Art.-No.	Shape	Dimension	Content
511112		~16 mm height, width on top ~11 mm, bottom width ~7 mm	12 pieces (single sterile units)

[1] G. Cardaropoli et al. J Clin Periodontol 2003; 30: 809-818

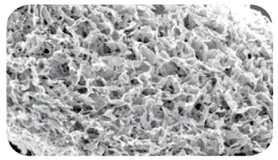
Jason® fleece

Collagen hemostat (Sponge)

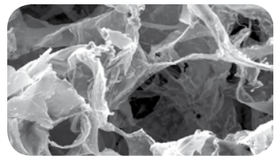
Jason® fleece is a pH-neutral, wet-stable fleece made of native collagen with a highly efficient hemostatic effect. The well-known effect of collagen is induced by the adhesion of platelets to the collagen fibrils.

Jason® fleece wet-stable and fast uptake of blood

As a consequence, platelets aggregate and release coagulation factors by degranulation. This initiates the coagulation cascade that leads to hemostasis.
Jason® fleece promotes the formation and stabilization of the blood coagulum and can be applied for wound protection and to support wound healing (i.e., biopsy harvesting sites, coverage of augmentation sites).
Jason® fleece is completely resorbed by natural processes occuring in the body within two to four weeks.



SEM: Jason® fleece



SEM: Jason® fleece 3D structure

Properties

- Highly effective hemostat
- Fast resorption by enzymatic degradation
- Easy application
- Maintains integrity in the presence of blood and during application
- Wound protection and support of wound healing

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Minor oral wounds
- Protection of Schneiderian membrane
- Extraction sites
- Biopsy sites
- Periodontal bone defects

Clinical use of Jason® fleece

Jason® fleece in blister pack

Product Specifications

Jason® fleece

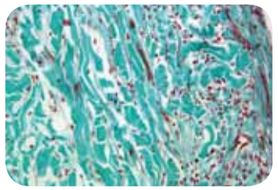
Art.-No.	Size	Content
690412	20 × 20 mm	12 pieces

collprotect® membrane

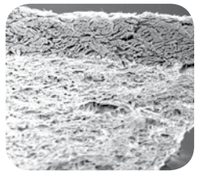
Native collagen membrane

collprotect® membrane is a native collagen membrane made of porcine dermis. Its multistep cleaning process ensures the removal of all antigenic and non-collagenous components, at the same time preserving its natural collagen structure.

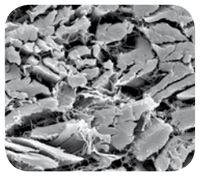
The unique processing as well as the open-porous, natural collagen structure of collprotect® membrane are the basis for its safe application in dental bone and tissue regeneration. Owing to its natural hemostatic function, the membrane enables early wound stabilization, thus supporting the natural wound healing. The rough surface of collprotect® membrane facilitates a fast integration into the surrounding soft tissue.



Histology six weeks after implantation of collprotect® membrane in a rat model: Blood vessels have penetrated the porous structure; collagen fibers are visible, and resorption proceeds without any inflammatory tissue response



SEM: collprotect® membrane



SEM: collprotect® membrane

Properties

- Preserved native collagen structure
- Natural wound healing and blood clot support
- Easy application and handling in dry or wet status
- Rough and porous structure for cell guidance
- Natural collagen structure

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Horizontal augmentation
- Socket and ridge preservation
- Sinus lift
- Protection and covering of Schneiderian membrane
- Fenestration and dehiscence defects
- Intraosseous defects (1 to 3 walls)
- Furcation defects (class I and II)

Product Specifications

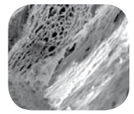
collprotect® membrane

Art.-No.	Size	Content
601520	15 × 20 mm	1 membrane
602030	20 × 30 mm	1 membrane
603040	30 × 40 mm	1 membrane

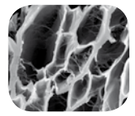
Jason® membrane

Native pericardium GBR/GTR membrane

Jason® membrane is a native collagen membrane obtained from porcine pericardium, developed and manufactured for dental tissue regeneration. The advantageous biomechanical and biologic properties of the natural pericardium are preserved during the production process.



SEM: Jason® membrane



SEM: Jason® membrane three-dimensional structure

Owing to these unique properties, the Jason® membrane exhibits beneficial handling characteristics such as a remarkable tear resistance and effective surface adaptation. Due to the natural comb-like and multilayered collagen structure with an increased content of collagen type III, the Jason® membrane shows a slow degradation. This ensures a prolonged barrier function, making the Jason® membrane our recommended choice particularly for large augmentative procedures.

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Horizontal and vertical augmentation
- Ridge reconstruction
- Socket and ridge preservation
- Sinus lift
- Protection and covering of Schneiderian membrane
- Fenestration and dehiscence defects
- Intraosseous defects (1 to 3 walls)
- Furcation defects (class I and II)

Good handling of Jason® membrane after rehydration

Histology of Jason® membrane 24 weeks after implantation in a rat model shows perfect integration without inflammatory reaction

Properties

- Prolonged barrier function
- Low-thickness native structure
- Easy manipulation, can be applied dry or wet
- No stickiness after rehydration
- Fast vascularization due to three-dimensional structure
- Multi-directional strength and tear resistance
- Excellent surface adaptation and reduced risk of swelling

Product Specifications

Jason® membrane

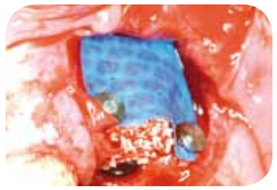
Art.-No.	Size	Content
681520	15 × 20 mm	1 membrane
682030	20 × 30 mm	1 membrane
683040	30 × 40 mm	1 membrane

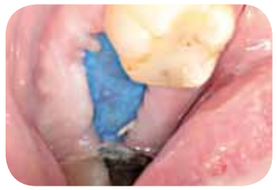
permamem®

High-density PTFE barrier membrane

permamem® is an exceptionally thin, non-resorbable, biologically inert and biocompatible membrane made of 100% high-density polytetrafluoroethylene (PTFE). permamem® maintains its structural integrity both during the initial implantation and over time. Due to its small pore size the membrane acts as an efficient barrier against bacterial and cellular penetration, and may therefore be left in place for open healing in certain indications.

Open healing with permamem® in socket or ridge preservation enables maintenance of the soft tissue architecture and contours since no primary wound closure is required. Due to the missing flap closure, the mucogingival line will not be displaced and the attached/ keratinized gingiva will be preserved.





Clinical use of permamem®

Properties

SEM: Surface structure of permamem®

- 100 % synthetic PTFE barrier membrane
- Ultra-thin (~0.08 mm)
- Impervious to bacteria due to dense structure
- Easily removable due to minimal tissue ingrowth into the surface structure
- No need for primary soft tissue closure (indication-dependent)
- Easy recovery thanks to blue color
- Rounded edges for minimal tissue trauma
- Easy fixation with sutures or pins
- Either side may be placed towards the defect site

Indications:

Implantology, Periodontology and Oral and CMF Surgery

- Socket and ridge preservation (open healing)
- Horizontal/vertical ridge augmentation
- Fenestration and dehiscence defects
- Intraosseous defects (1 to 3 walls)
- Furcation defects (class I and II)

Product Specifications

permamem®

Art.-No.	Size	Content
801520	15 x 20 mm	1 membrane
802030	20 x 30 mm	1 membrane
803040	30 x 40 mm	1 membrane

CLINICAL SUCCESS

with the right regeneration concept

360°

The indication matrix **supports** you in choosing the **most suitable treatment concept** through an **intelligent querying** in the navigation bar on the left-hand side.

The more specified the clinical situation, the more precise is the selection of treatment concepts displayed in the right-hand section.

The matrix contains **> 150 clinical cases and videos** as well as **handling tips** and recommendations of internationally recognized **clinical experts**.

Share your case!

INDICATION-MATRIX.COM

titan pin set

for membrane fixation

During the application of modern GBR and GTR techniques, barrier membranes are indispensable to achieve reliable results.

By fixation of the barrier membrane to the local bone, the application of the particulate bone regeneration material as well as the coverage of the augmentation site by the barrier membrane can be significantly simplified.

Using the one-piece applicator, titan pins can easily be taken up from the dispenser and applied to the fixation site. Distortion of the working-end during handling cannot occur.

Properties

- Utterly comfortable grip-ergonomics for easy uptake of titan pins
- Functional design
- Safe and easy opening by single-hand control
- Suitable for resorbable and non-resorbable membranes

Product Specifications

Art.-No.	Content
440000	titan pin set 1 × applicator 1 × dispenser for 15 titan pins 1 × titan pins 3 mm (10 pieces)
440310	titan pins 3 mm (10 pieces)

All parts are delivered unsterile and need to be sterilized before use.

Notes

Product codes

Bone substitutes

cerabone® granules

Art.-No.	Particle Size	Content
1510	0.5 – 1.0 mm	1 × 0.5 ml
1511	0.5 – 1.0 mm	1 × 1.0 ml
1512	0.5 – 1.0 mm	1 × 2.0 ml
1515	0.5 – 1.0 mm	1 × 5.0 ml
1520	1.0 – 2.0 mm	1 × 0.5 ml
1521	1.0 – 2.0 mm	1 × 1.0 ml
1522	1.0 – 2.0 mm	1 × 2.0 ml
1525	1.0 – 2.0 mm	1 × 5.0 ml

cerabone® Block

Art.-No.	Dimension	Content
1720	20 × 20 × 10 mm	1 × block

maxresorb® granules

Art.-No.	Particle Size	Content
20005	0.5 - 1.0 mm (S)	1 × 0.5 ml
20010	0.5 - 1.0 mm (S)	1 × 1.0 ml
20105	0.8 - 1.5 mm (L)	1 × 0.5 ml
20120	0.8 - 1.5 mm (L)	1 × 2.0 ml

maxresorb® blocks

Art.-No.	Dimension	Content
21211	20 × 10 × 10 mm	1 × block
21221	20 × 20 × 10 mm	1 × block

maxresorb® inject

Art.-No.	Unit	Content
22005	1 × syringe	1 × 0.5 ml
22010	1 × syringe	1 × 1.0 ml
22025	1 × syringe	1 × 2.5 ml

collacone® max

Art.-No.	Shape	Dimension	Content
250001		height ~16 mm, width on top ~11 mm, bottom width ~7 mm	1 cone

Bundle:
collacone® max and mucoderm® soft tissue punch

Art.-No.	Content
257110	1 x collacone® max 1 x mucoderm® punch (Ø 10 mm)

maxgraft® cancellous granules

Art.-No.	Particle Size	Content
30005	< 2.0 mm	1 x 0.5 ml
30010	< 2.0 mm	1 x 1.0 ml
30020	< 2.0 mm	1 x 2.0 ml
30040	< 2.0 mm	1 x 4.0 ml

maxgraft® cortico-cancellous granules

Art.-No.	Particle Size	Content
31005	< 2.0 mm	1 x 0.5 ml
31010	< 2.0 mm	1 x 1.0 ml
31020	< 2.0 mm	1 x 2.0 ml
31040	< 2.0 mm	1 x 4.0 ml

maxgraft® blocks

Art.-No.	Dimension	Content
31111	uni-cortical 10 x 10 x 10 mm	1 x block
31112	uni-cortical 20 x 10 x 10 mm	1 x block
32111	cancellous 10 x 10 x 10 mm	1 x block
32112	cancellous 20 x 10 x 10 mm	1 x block

maxgraft® cortico

Art.-No.	Dimension	Content
31251	cortical strut, 25 x 10 x 1 mm	1 x
31253	cortical strut, 25 x 10 x 1 mm	3 x 1

maxgraft® bonebuilder

Art.-No.	Content
PMIa	Individual planning and production of a bone transplant max. dimensions 23 × 13 × 13 mm

maxgraft® bonebuilder dummy

Art.-No.	Content
32100	Individual 3D-printed model of the patient's defect and and the plastic bonebuilder block (for demonstration purposes)

maxgraft® bonering 3.3
(Height 10 mm,
recommended for implant diameters from 3.3 - 3.6 mm)

Art.-No.	Dimension	Content
33160	cancellous ring, Ø 6 mm	1 x
33170	cancellous ring, Ø 7 mm	1 x

maxgraft® bonering 4.1
(Height 10 mm,
recommended for implant diameters from 4.1 mm)

Art.-No.	Dimension	Content
33174	cancellous ring, Ø 7 mm	1 x

Product codes

Collagen & barriers

Jason® fleece

Art.-No.	Size	Content
690412	20 × 20 mm	12 Pieces

collacone®

Art.-No.	Shape	Dimension	Content
511112		~16 mm height, width on top ~11 mm, bottom width ~7 mm	12 pieces (single sterile units)

mucoderm®

Art.-No.	Size	Content
701520	15 × 20 mm	1 matrix
702030	20 × 30 mm	1 matrix
703040	30 × 40 mm	1 matrix
710210	Ø 10 mm	1 punch*

*Also available as bundle (Art.-No. 257110):
mucoderm® soft tissue punch and collacone® max

collprotect® membrane

Art.-No.	Size	Content
601520	15 x 20 mm	1 membrane
602030	20 x 30 mm	1 membrane
603040	30 x 40 mm	1 membrane

Jason® membrane

Art.-No.	Size	Content
681520	15 × 20 mm	1 membrane
682030	20 × 30 mm	1 membrane
683040	30 × 40 mm	1 membrane

permamem®

Art.-No.	Dimension	Content
801520	15 x 20 mm	1 membrane
802030	20 x 30 mm	1 membrane
803040	30 x 40 mm	1 membrane

Instruments

titan pin set

Art.-No.		Content
440000	titan pin set	1set
440310	titan pins 3 mm	10 pieces

bonering fix

Art.-No.		Content
33010	bonering fix	1 ×

maxgraft® bonering surgical kit

Art.-No.	Content
33000	1 × trephine 7 mm 1 × trephine 6 mm 1 × planator 7 mm 1 × planator 6 mm 1 × diamond disc 10 mm 1 × diamond tulip 3 mm

cortico trimmer

Art.-No.		Content
34000	cortico trimmer	1 x

bone & tissue
regeneration

botiss
biomaterials

Innovation.
Regeneration.
Aesthetics.

soft tissue

education

hard tissue

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