



Biomaterials@Straumann®
Because one option is not enough.

botiss cerabone®

NATURAL BOVINE BONE GRAFTING MATERIAL



cerabone® provides dependable stability and strength and predictably integrates into newly formed bone ensuring volume maintenance and a strong, long-lasting matrix to support the successful placement of dental implants.

FEATURES AND BENEFITS

Osteoconductivity	High porosity and rough surface morphology account for the osteoconductive properties. The natural bone structure of cerabone® with interconnected pores facilitates the adhesion and invasion of bone forming cells and results in complete integration of the implant due to the ingrowth of cells and blood vessels.
Volume stability	cerabone® undergoes superficial resorption only. The granules provide dependable stability and predictably integrate into newly formed bone. This ensures volume maintenance and a strong long lasting matrix for successful placement of dental implants.
Safety	The proprietary manufacturing process of cerabone® is based on high temperature heating ($> 1200 \text{ }^{\circ}\text{C}$) that completely removes and eliminates all organic components and albuminous impurities (proteins, antigenic components, potential bacteria, viruses and prions). Gamma-irradiation ensures final sterility of cerabone®.
Biocompatibility	cerabone® demonstrated biocompatibility in more than 650,000 successful augmentations. The high temperature production process eliminates all organic components.
Hydrophilicity	The interconnected pores and rough surface morphology of cerabone® facilitate excellent hydrophilicity and support adhesion of proteins and signaling molecules from the blood to further improve the fast bony integration of cerabone®.
Easy handling and application	cerabone® particles absorb liquid quickly and adhere to each other after mixing, thereby facilitating handling and application into the defect.

PROPERTIES

Attribute	Description
Origin	Bovine cancellous bone from New Zealand cattle
Composition	Calcium phosphate (100% pure hydroxyapatite, mineral phase)
Porosity	65-80%
Mean pore size	600-900 µm
Degradation kinetics	Very slow superficial degradation of particles, osseous integration of particles into newly formed bone matrix
Healing/integration time	6-9 months
Storage temperature	5-25 °C
Shelf life	3 years



Courtesy of Dr. Viktor Kalenchuk, Chernivtsi/Ukraine

APPLICATION AND HANDLING

Opening

cerabone® is delivered sterile and must be used immediately after opening in an aseptic environment.

Rehydration

Rehydration of cerabone® in blood from the defect site or saline solution is not required but recommended, as it facilitates handling and application of the particles.

Application

- Avoid compressing the particles during application. Non compacted particles leave space for blood vessel ingrowth and formation of new bone matrix.
- Fill the defect as completely as possible.
- Ensure maximum contact between the graft material and viable bone in a well vascularized area.
- It is recommended using a membrane approved for such augmentation procedures.

Wound closure

Ensure primary wound closure by tension-free repositioning and suturing of the flap.

Healing time and re-entry

The appropriate healing time is patient- and site-dependent and has to be decided by the clinician based on the assessment of the patient's individual situation. A minimum healing period of six months is recommended before re-entry to ensure stable integration of particles.

Particle size

Use of small granules gives better surface contouring, especially in the esthetic region. Use of large particles enables a better revascularization of larger defects.

Mixing with maxgraft® (allograft)

Mixing of cerabone® with allogeneic bone (maxgraft®) combines the advantages of both materials; the biological potential of maxgraft® and the long-term stability of cerabone® lead to fast regeneration of vital, strong bone.

Mixing with autologous bone

Mixing of cerabone® with autologous bone adds a biological activity (osteoinductive and osteogenetic properties of autologous bone) and supports faster regeneration and improved formation of new bone.

Recommended for

cerabone® is recommended for implantology, oral surgery, periodontology and craniomaxillofacial surgery (CMF):

- Sinus floor elevation
- Horizontal augmentation
- Ridge preservation
- Intraosseous defects
- Peri-implant defects
- Socket preservation
- Furcation defects

Available in the following sizes

Code	Description	Product
BO-1510	0.5-1.0 mm, 1x 0.5 cc (ml)	botiss cerabone® granules
BO-1511	0.5-1.0 mm, 1x 1.0 cc (ml)	
BO-1512	0.5-1.0 mm, 1x 2.0 cc (ml)	
BO-1515	0.5-1.0 mm, 1x 5.0 cc (ml)	
BO-1520	1.0-2.0 mm, 1x 0.5 cc (ml)	
BO-1521	1.0-2.0 mm, 1x 1.0 cc (ml)	
BO-1522	1.0-2.0 mm, 1x 2.0 cc (ml)	
BO-1525	1.0-2.0 mm, 1x 5.0 cc (ml)	

For further informations please visit
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