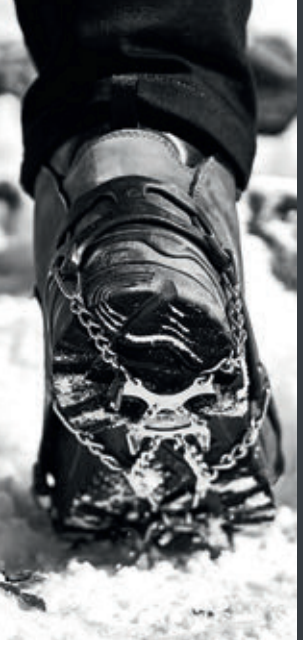
BIOMATERIALS

Straumann® Biomaterials > Bone Grafts

cerabone® plus

Mastering application comfort.

straumann



BONE GRAFTS

cerabone® plus

Sticky bone out of the blister

Bovine

cerabone® plus is a combination of the established bovine bone grafting material cerabone® and sodium hyaluronate. Upon contact with saline or blood, it forms a sticky bone material, leading to excellent handling comfort by allowing both easy uptake and delivery to the site of application.

FEATURES AND BENEFITS

Sticky and malleable after hydration	Thanks to the pronounced liquid binding capacities of hyaluronate, cerabone® plus, upon hydration, forms a connected and malleable mass that provides easier application compared to conventional particulate bone grafts. cerabone® plus allows easy uptake, precise particle application, efficient defect filling and easy defect contouring.
Ideal liquid binding capacity of hyaluronic acid	Hyaluronic acid is capable to incorporate a liquid volume 1000 times larger than the molecule itself. It is highly hygroscopic, biodegradable, and will be quickly decomposed in the early phase of healing.
Human-like bone structure of bone mineral component	The bone mineral component (cerabone®) displays human-like bone structure with three-dimensional pore-network and rough surface. The osteoconductive scaffold promotes the adhesion and invasion of bone forming cells, resulting in complete integration of the granules into newly formed bone matrix.
1200 °C safety and biocompatibility	Utilizing heat and water only, the 1200 °C heating process of cerabone® removes all organic components and leads to a pure natural bone mineral. Gamma-irradiation ensures final sterility of cerabone® plus.
Long-term volume stability	With limited degradation, cerabone® plus provides predictable and viable structural support to the augmented site, which is particularly advantageous for support of the soft tissue in the esthetic region, for preservation of the ridge shape and to protect autologous or allogenic bone from resorption.

INDICATIONS

- Alveolar ridge augmentation/reconstruction
- Filling of bone defects (including after root resection, apicoectomy or cystectomy)
- Filling of extraction sockets to support alveolar ridge preservation
- Sinus floor elevation
- Filling of periodontal bone defects
- Filling of extraction sockets as part of immediate implantations
- Filling of peri-implant bone defects

Available in the following sizes

Code	Description	Product
1810	cerabone® plus, 0.5 – 1.0 mm, 0.5 ml	cerabone® plus small granules
1811	cerabone® plus, 0.5 – 1.0 mm, 1.0 ml	
1820	cerabone® plus, 1.0 – 2.0 mm, 0.5 ml	cerabone® plus large granules
1821	cerabone® plus, 1.0 – 2.0 mm, 1.0 ml	

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PROPERTIES

Attribute	Description
Origin	Bovine cancellous bone. Sodium hyaluronate obtained from bacterial fermentation
Composition	Natural bone mineral (calcium phosphate) and non-crosslinked sodium hyaluronate
Degradation kinetics	Bone mineral component: Only superficial degradation. Long-term volume stability. Hyaluronic acid: Complete resorption by enzymatic degradation within the first weeks following implantation.
Healing/integration time	6 – 9 months
Storage temperature	5 – 25 °C
Shelf life	3 years

Practical blister pack
for convenient hydration

APPLICATION AND HANDLING

Hydration

cerabone® plus must be hydrated before use (see table below). Approx. 0.5 ml of liquid (corresponds to about 10 – 12 drops) must be added to 1 ml of bone substitute material. Hydration can be performed with sterile saline solution or patient blood.

Hydration Protocol

Code	cerabone® plus volume	Hydration with
1810 and 1820	0.5 ml	approx. **0.25 ml** liquid
1811 and 1821	1.0 ml	approx. **0.5 ml** liquid

Handling tips

- Add liquid carefully dropwise and mix liquid with cerabone® plus until the desired texture is obtained
- Remove excess liquid from the defect site prior to the application
- Fixate the graft with a barrier membrane

Healing time and re-entry

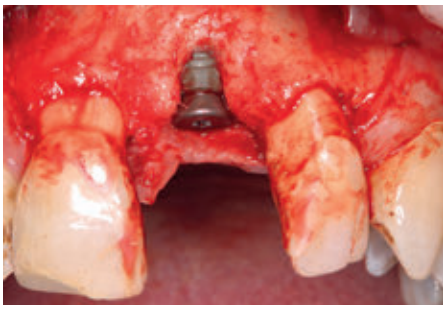
A minimum healing period of six months is recommended before re-entry to ensure stable integration of particles. The appropriate healing time is patient- and site-dependent and has to be decided by the clinician based on the assessment of the patient's individual situation.

CLINICAL APPLICATION

Bone augmentation and soft tissue support in the esthetic zone with cerabone® plus and Jason® membrane.

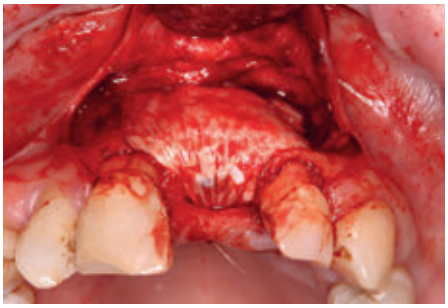
1. Initial situation

2. Soft tissue healing after extraction



3. Straumann® BLT in place

4. GBR using layering technique: autogenous bone chips covered by cerabone® plus



5. Jason® membrane fixed to stabilize bone grafts and prevent soft tissue ingrowth

6. Result at 6 months after treatment

Pictures courtesy of Dr. Andoni Jones, Dublin, Ireland.

BIOMATERIALS

cerabone® plus

- Sticky and malleable after hydration
- Efficient defect filling and time-saving application
- Easy defect contouring
- Minimized displacement of single granules during application
- Long-term volume stability

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