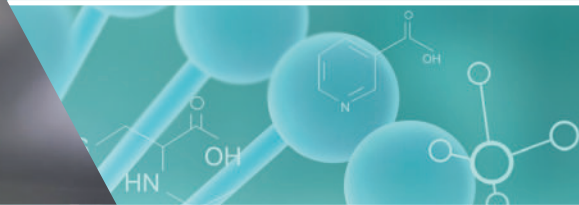




 **powerbone®**  
pioneer of health



for website

CE 01.26/REV20/07.09.2023

**BONEGRAFT®**  
— BIOMATERIALS —

# INDEX

2	About Powerbone
3	Mission and Vision
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# POWERBONE

A biotechnology company that focuses on the development, manufacturing and marketing of innovative and functional biomaterials.

Powerbone Biomaterials Co. is one of the leading company in the world that can produce osteoinductive and osteoconductive synthetic bone graft materials, barrier membrane, bone cement and cartilage graft.

Powerbone R&D activities take place at Ege University Technology Development Centre under ISO-7 (Class 10000). Since 2016 production to ISO-5, ISO 6 and ISO-7 (Class 100,1000,10,000) conditions takes place in Manisa.

In addition to expert employees, high technology and strong capital, Powerbone Biomaterials customer service exceeds Internationally recognised quality and management standards.



# VISION-MISSION

## Our Vision;

Our aims are to become a globally competitive and respected biomaterials company that draws attention to developed strategic innovations and to bring the name and power of our country in the field of biomaterials manufacturing to the top.

## Our Mission;

To have the widest and most innovative biomaterials range in the field of orthopedic, spine, trauma, and dental surgeries with the maximum investment power to R&D studies.



# R&D-Oriented Production



## Production

Powerbone's modern production facility is electronically controlled. Multiple production parameters are observed in real time 24/7 according to ISO7 standard. The production areas are monitored according to ISO14644 Class 10.000 and Fed.Std.209 D, ISO5. ISO 14644 is applied to the clean rooms and packaging areas to Fed.Std.209D

All raw materials and equipment used in production processes are supplied from European and American companies with the highest technological standards.

### TSE approved TS EN ISO 13485 Quality Management System

Our products bear the CE mark as Class III Medical Device, in which the highest level of safety standards are applied to the production conditions. Product quality control tests are carried out in reputable universities and test organizations in Turkey and abroad.

## Quality

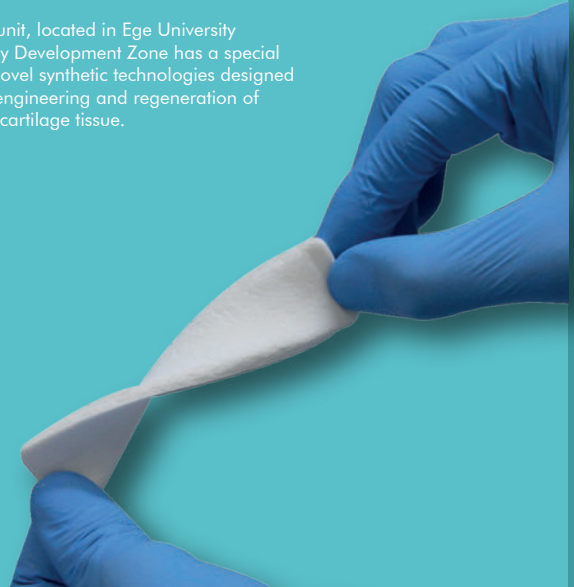
Quality control is carried out in accordance with production instructions using measurement devices unique to each specific medical device.

# BIOMATERIAL INNOVATION REPLACED BY NEW BONE

- Innovative Flexible Bone Graft
- Connected high pore structure, cross-section of bone grafts for different geometries and sizes
- Bone graft in injectable form that does not require mixing

## R&D

Our R&D unit, located in Ege University Technology Development Zone has a special focus on novel synthetic technologies designed for tissue engineering and regeneration of bone and cartilage tissue.



# CERTIFICATES



CE

- ISO - 13485
- ISO 9001
- CE Certificates for each product groups



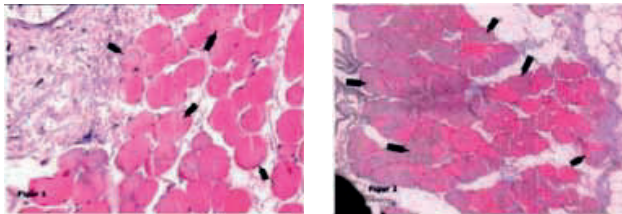




# SILICATE ADDITIVE GRANULE, STICK & BLOCK & WEDGE

## Osteoconductive and Osteoinductive

- The high porosity of Powerbone products support initial clot stabilisation.
- Calcium phosphate provides a conductive scaffold for blood vessels and bone stimulating cells - a structure very similar to the mineral component of natural bone.
- Powerbone materials include silicate which increases circulating protein retention giving bioactive characteristics to the graft.



## Biodegradable

Biodegradable with Full Resorption. With its optimized porous structure and chemical composition, Powerbone grafts are optimised for bone healing. During the healing process, silicate is adsorbed first followed by the  $\beta$ -TCP scaffold in 4-6 months promoting replacement with native new bone.



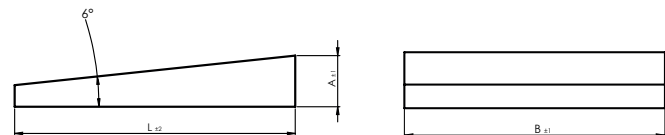
For product dimensions and reference numbers, please refer to the product lists at the end of the catalogue.

## Safe, Biocompatible and Sterile

Powerbone grafts are supplied sterile and CE marked as a Class III Medical Device according to 93/42 / EC directive. Biocompatibility (in vitro and in vivo), biodegradation, bioburden and sterility tests are applied to each material.

## Radiopaque

CT and X-ray traceability is possible.

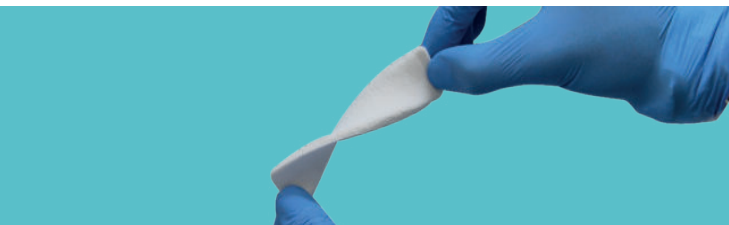


## FLEXIBLE STRIP / GRAFT



Powerbone Flexible Strip is a biodegradable synthetic graft that is easy to use due to its high elasticity, especially in bone/tissue defects of the orthopedic pelvis and lower extremities as well as posteriolateral spinal fusion cases.

Powerbone Flexible Strip consists of silicate-added B-TCP embedded inside a PLA based synthetic polymer lattice of varying thicknesses. Osteoinductive characteristic are achieved through the addition of silicate to the embedded Powerbone graft material.



For product dimensions and reference numbers, please refer to the product lists at the end of the catalogue.

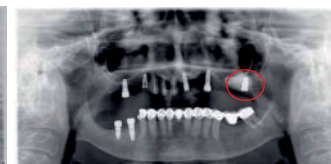
Powerbone Flexible Strip Implantation;

- Powerbone Flexible Strip can be applied to the surgical area directly or combined with bone marrow aspirate or blood.
- When wetted the flexibility of Powerbone Flexible Strip increases significantly.
- Powerbone Flexible Strip must be implanted just before all metallic implants (dental&spinal&orthopedics) are stabilized and the surgical site is closed.
- Powerbone Flexible Strip can be cut and placed in the spinal fusion cages and devices bent.
- Powerbone Flexible Strip gains osteoinductive characteristic due to silicate addition to the product content.
- For dental usage the indications are limited with lateral augmentation, ridge augmentation, on lay graft technique and sandwich technique.

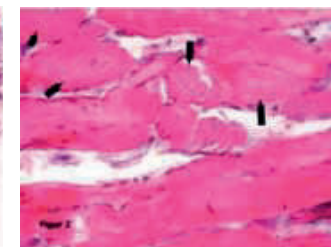
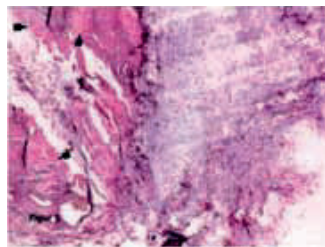
## SILICATE ADDITIVE PUTTY & GEL & DENTAL PUTTY



- Minimally invasive surgical application
- Quick and easy application. Does not require mixing.
- Accelerates Bone formation.

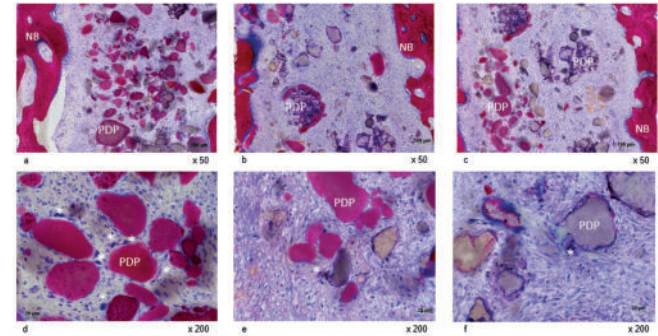
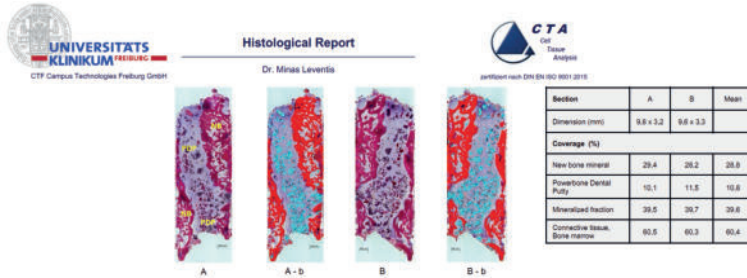


- Designed for the healthy development of bone and periodontal support tissue.



- Composed of silicate added B-TCP and resorbable cellulose carriers of varying viscosities.
- Powerbone syringe delivered grafts gains osteoinductive properties due to silicate addition.

# HISTOLOGIES OF DENTAL PUTTY



**Fig. 2 Details Section A**

- a-f) PDP surrounded by connective tissue.
- b) Occasionally, Osteoid (O) detectable.
- d-f) Extraordinary amount of multinucleated giant cells (MNGs, Asterisk\*) visible.
- d-f) PDP appears biphasic (grey and pink)

## Background

Male, 25 years old.

Non-smoker.

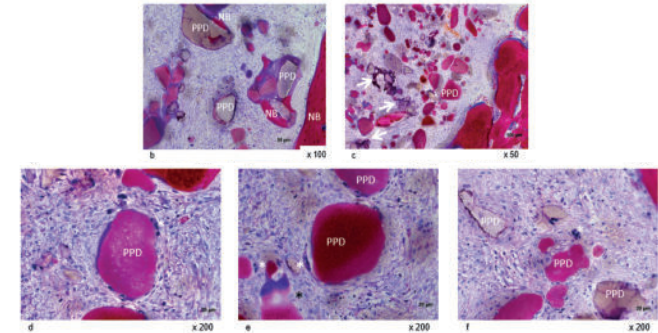
Non-contributory medical history.

Surgical extraction and immediate grafting of the large 4-wall bone defect with Powerbone Putty.

Case performed by Dr. Minas Leventis, DDS, MSc, PhD, TR

## CASE STUDY

1. Initial radiological view.
2. Removal of impacted tooth.
3. Usage of Powerbone Putty for immediate grafting of the large 4-wall bone defect.
4. Histology of extracted bone cyst.



**Fig. 3 Details Section B**

- f) PDP surrounded by connective tissue. Plenty of multinucleated giant cells (MNGs) visible as well.
- b) Many PDP particles demonstrate new bone formation (NB) at the particle surface.
- f) PDP appears biphasic (grey and pink). Some particles seem to be in dissolution (arrow ->)

# DENTAL BARRIER MEMBRANE

Powerbone Barrier Membrane is:

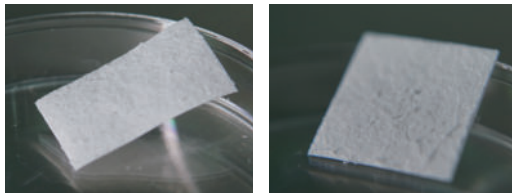
- Designed for the healthy development of bone and periodontal support tissue.

- Composed of a poly (lactic acid) based synthetic polymer that is biocompatible and resorbable with an excellent safety profile in medical applications.

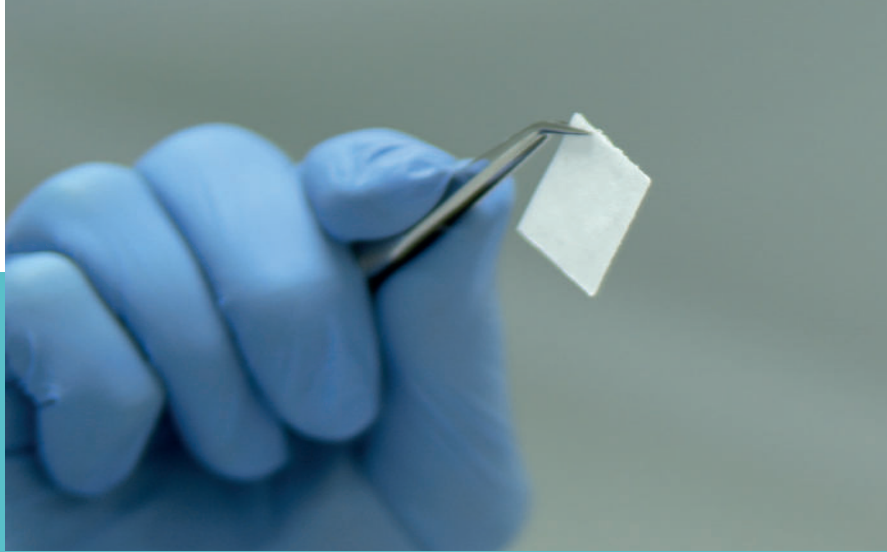
The three-layered structure of Powerbone Barrier Membrane prevents the migration of epithelial and fibroblast cells, selectively supporting the healthy development of bone and periodontal tissues. Powerbone Barrier Membrane preserves its structure for 10-12 weeks and is completely absorb.

Powerbone Barrier Membrane does not contain human or animal tissue, removing any risk of viral or disease transmission as well as complying with the wishes of vegans who avoid animal derived products.

Due to its complete resorption, a second surgery for removal is not required.



For product dimensions and reference numbers, please refer to the product lists at the end of the catalogue.



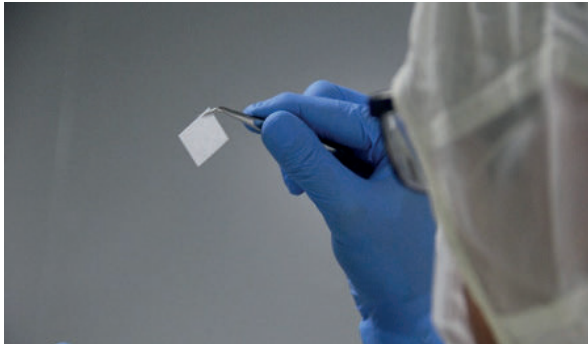
## Powerbone Barrier Membrane Application

The outer surface of the Powerbone Barrier Membrane, consists of a compressed (non porous) poly (lactic acid) (PLA) layer which is placed next to the soft tissue to exclude epithelial and fibroblast cells from the site.

The inner surface of the Powerbone Barrier Membrane faces the bony surface and consists of porous poly (lactic acid) (PLA) microfibers which induce mesenchymal stem cell retention proliferation and differentiation.

The three-layered barrier membrane is designed for the healthy development of bone and periodontal support tissue.

## CHONDRO MATRIX



Powerbone Chondro Matrix is one-step, hydrophilic, sterile, bioresorbable, CE marked, cell-free implant used to treat articular cartilage defects in the knee, ankle or hip. It uses the biological potential of stem cells to restore damaged cartilage tissue in the joints.

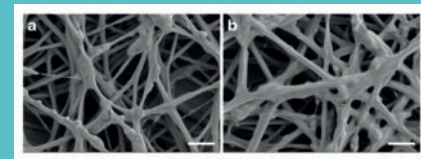
Powerbone Chondro Matrix is composed of biomedical grade Polylactic acid (PLA) to provide structural support for 1-2 months and sodium hyaluronate (hyaluronic acid) to promote chondrogenesis.

Chondro Matrix does not contain human or animal tissue, removing any risk of viral or disease transmission as well as complying with the wishes of vegans who avoid animal derived products.

Due to its complete resorption, a second surgery for removal is not required.

Used for repair and surgical treatment of pain and limited mobility. When placed next to the damaged area, Chondro Matrix absorbs the accumulated blood and provides optimal defect coverage, induces the formation of cartilage repair tissue, reduces pain and symptoms associated with joint defects, and improves patients' quality of life and mobility.

For product dimensions and reference numbers, please refer to the product lists at the end of the catalogue.



Chondro Matrix low (a) and high (b) magnification SEM image.

### Use of Powerbone Chondro Matrix;

#### 1 Microfracturing

- Mesenchymal stem cells are obtained by Marrow stimulating procedures, such as microfracturing or Pridie drilling.

#### 2 Preparation and Implantation of Powerbone Chondro Matrix

- Powerbone Chondro matrix can be easily trimmed to match the defect.
- Powerbone Chondro matrix is implanted into the defective cartilage by mini-open or keyhole procedure.

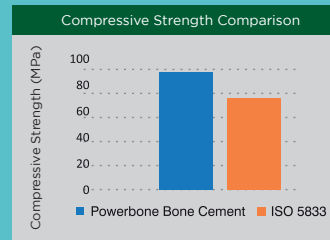
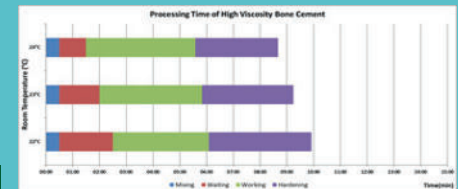
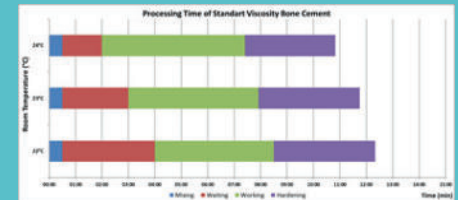
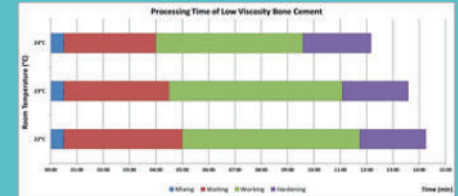
#### 3 Fixation of Powerbone Chondro Matrix

- Powerbone Chondro matrix can be fixed to the defect by commonly used orthopaedic fixation methods.
- Bioresorbable pins.
- Cartilage suture.
- Fibrin glue.



# BONE CEMENT

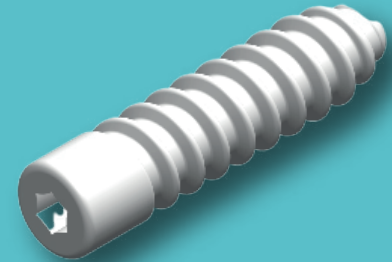
- Polymethyl methacrylate (PMMA) based Bone Cement is a widely used biomaterial due to its ease of use in clinical practice and its long survival rate, especially with prosthetics.
- Common indications for using Bone Cement: total joint replacement, bone and joint reconstructions, fracture fixation and treatment of osteoporotic vertebral fractures.
- Bone Cement consists of two phases, solid and liquid phases.
- Powerbone Bone Cement it is presented in three different viscosities as low, standard and high.
- Dough and setting times, maximum temperature and mechanical strength values are matched to Internationally recognised ISO 5833 standards.



## INTERFERENCE SCREW

Interference screw is a fixation device used to rigidly fix bone-patellar tendon-bone graft both in femoral and tibial tunnels and anterior cruciate ligament (ACL) reconstruction.

- Poly (L-D, Lactide) (70/30) polymer or Poly (L-D, L Lactide) (70-30) +  $\beta$ -TCP (70/30) composite implants are absorbed in the body and revision surgeries are not needed.
- Used in anterior and posterior cruciate ligament surgery for temporary fixation of tendon bone and soft tissue.
- The interference screw device is supplied sterile and carries Class III Medical Device status according to the CE directive 93/42/EC. Biocompatibility, biodegradation, bioburden and sterility tests are applied to each batch to ensure predictable performance.



Poly (L-D, Lactide) (70/30) +  $\beta$ -TCP



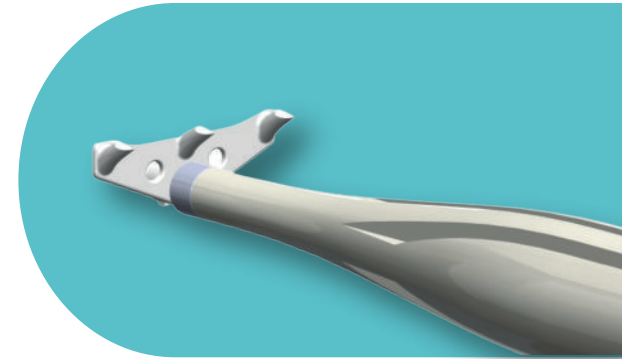
Poly (L-D Lactide) (70/30)



# BIOABSORBABLE FACE LIFTING DEVICE

## TRANSBLEPH

- Fast way to achieve upper periorbital region rejuvenation. This device provides versatility to combine upper eyelid skin removal with brow and upper eyelid repositioning in a single surgical session.
- Using the required upper blepharoplasty incision as an entry port, transbleph assists the surgeon in a holistic approach to the upper periorbital region. The device is easy to implement in the field and no extra hardware is required, meaning fewer tools for installation, handling and maintenance.



Transbleph

## FOREHEAD

- Optimized size for sensitive applications forehead provides a smaller implant scale with the same predictability and safety for finer local precision applications in the forehead area. It also offers a suitable solution for patients with thicker, soft tissue and forehead skin.
- An ultra-thin platform with multiple ultra-thin spines that are unaffected by palpability but provide sensitivity for patients with all the physical characteristics of the larger Forehead scale.



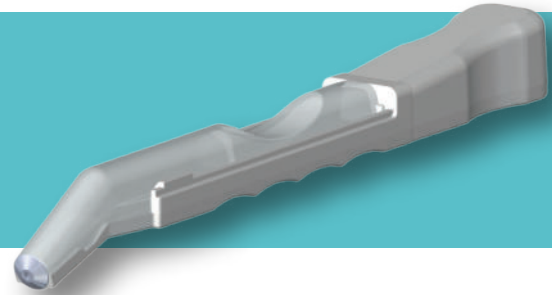
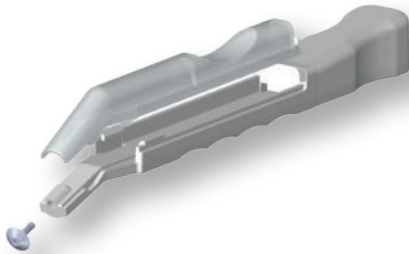
Forehead

## BONE SCRAPER

The Powerbone Bone Scraper is produced from a non toxic polymer. A stainless steel cutter is used to scrape and collect autogenous bone fragments from the chin or ramus area.

Powerbone Bone Scraper is designed for use by a suitable qualified clinician.

The Powerbone Bone Scraper is a disposable device used to collect autogenous bone particles for use in guided bone regeneration procedures.



### Bone Scraper Application

The resulting bone fragments provide a high volume due to their curved shape, which significantly reduces the amount of augmentation material required and reduces the invasiveness of the intervention.

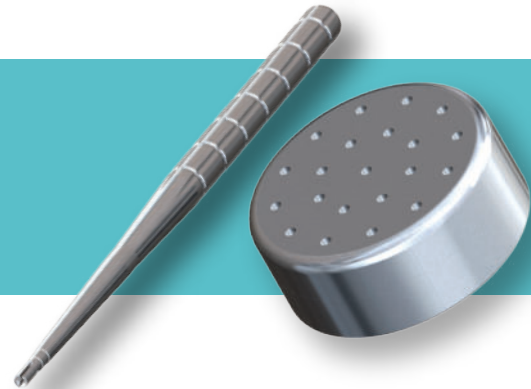
Powerbone Scrapers offer the possibility of obtaining both cortical and spongy bone. Manual removal mixes bone fragments directly with patient blood and retains cellular components such as osteocytes for optimal bone regeneration.

## TITANIUM PIN SET (GRADE 5)

### PROPERTIES

Ergonomically designed for easy capture and quick application of titanium pins. The Powerbone Pin Applicator offers single-handed fixation of resorbable and non-resorbable membranes.

- The ergonomic design of the applicator allows easy removal of the pin and easy fixation of the membrane. The notch, which is approximately half the length of the pin, ensures that the pin engages bone easily.
- The pin head macro geometry allows insertion without bone preparation whilst the head design prevents bending during application. These features result in higher torque insertion, better primary stability, and a more predictable success rate.
- Distortion of the pin apex during handling cannot occur.



Length  
• 3 mm  
• 5 mm

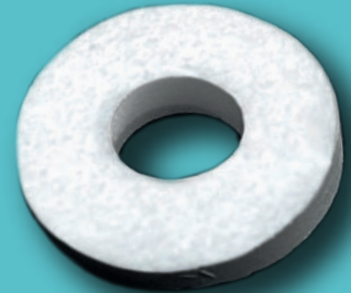
## ALLOGRAFT

- Allograft is osteoconductive, osteoinductive and demineralised. There is a patient follow-up form in the product box. The product is processed in accordance with GMP standards. The material content is of 100% human origin.
- Allograft is biocompatible with human tissue. Necessary infective tests is done.
- The shelf life of Allograft is 5 years and is processed who has the ISO 13485 Quality Management System Certificate obtained from the accredited institution.
- Allograft is aseptically processed and sterilized by the Gamma irradiation method.
- Processing company is a member of European Association or Tissue Banks.



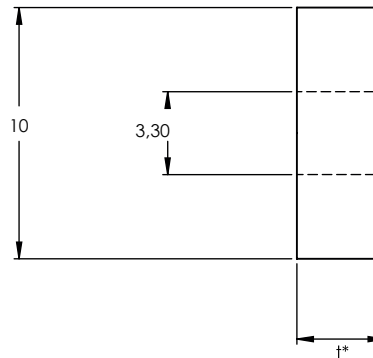
## PERI-IMPLANT RING

- Peri-Implant-Ring material consists of silicate-added  $\beta$ -TCP embedded inside a PLA based synthetic polymer lattice.
- The product is presented as a flexible ring structure.
- Powerbone Flexible Ring does not contain human and animal origin tissue or blood derivatives.
- Peri-Implant-Ring is sterilized by Gama radiation and is osteoconductive and osteoinductive.
- The shelf life of the product is 3 years.

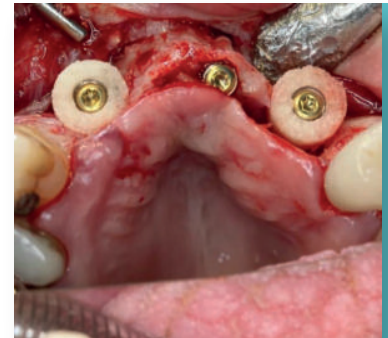


### Peri-Implant Bone Ring Benefits

- Predictable bone augmentation.
- No need to harvest bone.
- Associated risk of infection donor site morbidity and pain can be avoided.
- Improved initial implant stability.
- Successful in ridge defects effective in sinus floor elevations.
- Reduces the overall number of procedures and treatment time is reduced for a gratifying patient acceptance.



\*t = 3,50 / 6,50 / 15



## CRANIAL PLUG

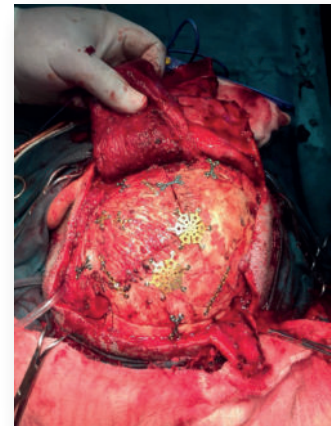
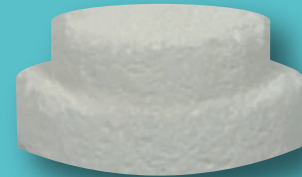
The cranial plug is designed for the reconstruction of cranial burr-holes.

### Osteoconductive and Osteoinductive

- The high porosity of Powerbone products support initial clot stabilisation.
- Calcium phosphate provides a conductive scaffold for blood vessels and bone stimulating cells - a structure very similar to the mineral component of natural bone.
- Powerbone materials include silicate which increases circulating protein retention giving bioactive characteristics to the graft.

### Biodegradable

- Biodegradable with Full Resorption. With its optimized porous structure and chemical composition, Powerbone grafts are optimised for bone healing. During the healing process, silicate is adsorbed first followed by the  $\beta$ -TCP scaffold in 4-6 months promoting replacement with native new bone.
- Powerbone grafts are supplied sterile and CE marked as a Class III Medical Device according to 93/42 / EC directive. Biocompatibility (in vitro and in vivo), biodegradation, bioburden and sterility tests are applied to each material.
- CT and X-ray traceability is possible.



## CONE SOCKET SPONGE

- Powerbone Cone consists of silicate-added B-TCP embedded inside a PLA based synthetic polymer lattice of varying thicknesses.

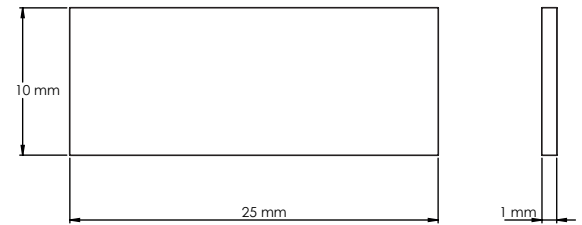
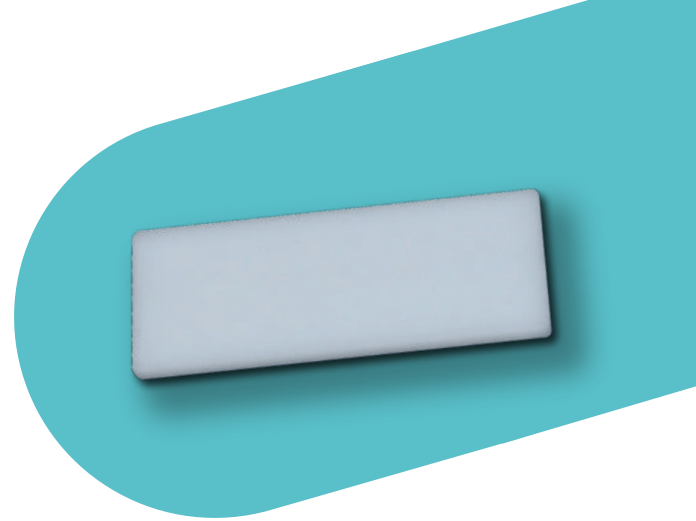
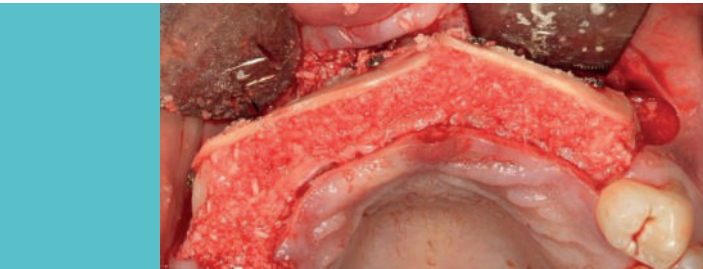
Powerbone Cone Implantation;

- Powerbone Cone can be applied to the surgical area directly or combined with bone marrow aspirate or blood.
- Buller shaped for easy placement in extraction sockets.
- One size available, 10 mm x 16 mm
- Can be trimmed or shaped for a better fit.



## CORTICAL PLATE

- The cortical plate consists of synthetic composite materials (PLGA +  $\beta$ -TCP).
- Cortical Plate is used for bone fixation in trauma and reconstructive surgical operations.
- Cortical Plate is bioabsorbable.
- Cortical Plate does not contain human and animal origin tissue or blood derivatives.
- Cortical Plate graft is safe for patients undergoing MRI or CT scans and is biocompatible with human tissue. The shelf life of Cortical Plate is 3 years with sterilisation by ethylene oxide. Cortical Plate carries a CE mark and is produced in a ISO 13485 Quality Certified facility.

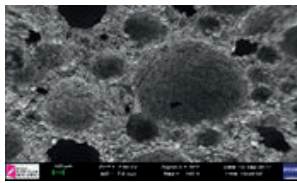
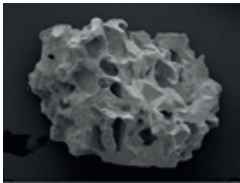




## BIPHASIC GRANULE (90% HA 10% $\beta$ -TCP)

### Osteoconductive and Osteoinductive

- Shelf life is 5 years.
- The product is produced by Powerbone who is a manufacturer the ISO 13485 Quality Management System Certificate obtained from the accredited institution.
- Biphasic Granule is biocompatible with human tissue.
- Biphasic Granule is osteoconductive and osteoinductive.
- Biphasic Granule must be sterilized by the Gamma irradiation method.
- Biphasic Granule is similar structure to the mineral present in the bone.



- Powerbone Biphasic bone graft pore structure and composition is optimised for new bone regeneration and long term volume preservation.
- While the granule containing only  $\beta$ -TCP degrades in 6-12 months during the healing process, in the combination of 90% HA and 10%  $\beta$ -TCP,  $\beta$ -TCP degrades first and then HA, this process takes 12-18 months and supports bone formation.



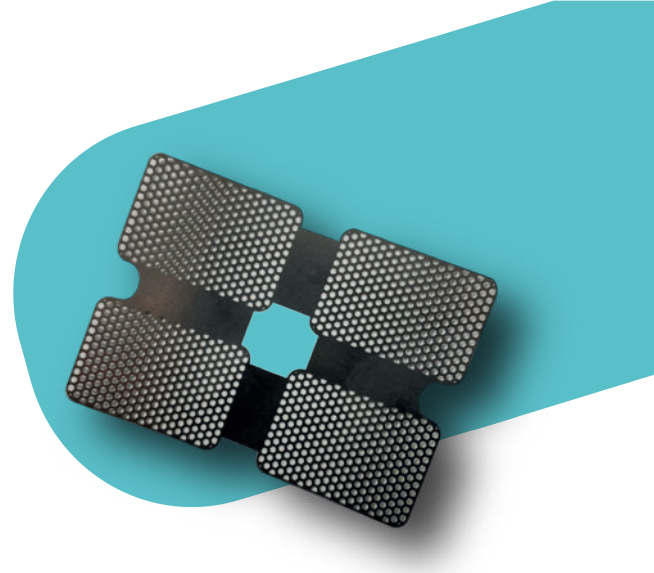
The combination of 90% HA and 10%  $\beta$ -TCP allows the degradation kinetics to be adjusted in vitro and in vivo. Elicits similar responses to in vitro and in vivo responses by bone and promotes cell attachment, proliferation, and expression. The combination of 90% HA and 10%  $\beta$ -TCP has been successfully used in many clinical situations such as repair of bone defects, bone augmentation in spinal arthrodesis, periodontal treatment, or coating for metallic implants.

## TITANIUM BARRIER MEMBRANE (GRADE 5)

The mesh plate is a very thin, soft and elastic, strong membrane with good adhesion.

Thanks to its very flexible structure, independent alignment can be achieved even in uneven areas.

- **Stability**  
Strong thanks to the community structure. It can be easily placed thanks to its strong holding feature.
- **Elasticity**  
Made of soft, flexible and elastic straps. It is easy to handle and the local control can be easily adapted.
- **Biocompatibility**  
Does not cause adverse tissue values as it is made from the body
- **Nonresorbable**

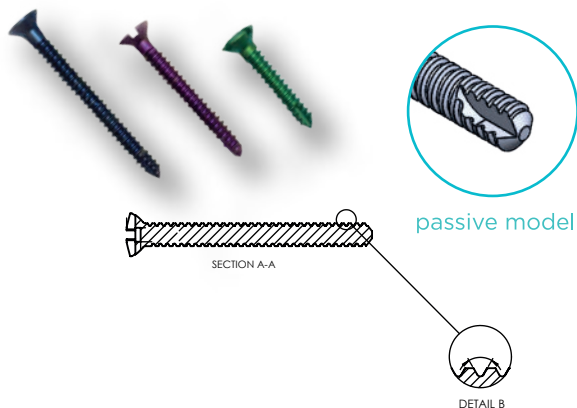


- Thickness 0,1 mm
- 15x20 mm 4 membranes

## FIXATION SCREW (GRADE 5 TITANIUM)

Indicated for use in Guided Bone Regeneration, fixation of membranes, flexible strips, cortical grafts and meshes.

- **High stability**  
The titanium alloy (grade 5) fixation screw provides high stability without weakening of the material thanks to the aggressive structure of the screw.
- **Biocompatible**  
The screw material helps to reduce the risk of infection and helps to prevent allergic reactions.



For product dimensions and reference numbers, please refer to the product lists at the end of the catalogue.

## POWERBRIGHT (Home Use)

Powerbright (Home Use) is a cosmetic product designed for use in the oral cavity as a tooth whitening agent. The controlled application of the supplied agent lightens the teeth by gentle bleaching of organic pigments within the enamel.

### Contents

- 8 x 1,5 g teeth whitening syringes.
- 2 whitening tray.
- Box for whitening tray.
- **Ingredients:** Hydrogen peroxide, glycerol, sodium hydroxide, potassium nitrate, carbomer, aroma.

Powerbright (Home Use) is for at-home application following the advice of a professional.



# POWERBRIGHT PLUS

## (Office Use)

Powerbright Plus is an oral care product used under the supervision of a professional for in office tooth whitening. Powerbright Plus lightens teeth by bleaching stains created by organic pigments deep in the dentin tissue.

## Contents

- 4 x 0,4 g A syringes + 4 x 1,1 g B syringes.
- 2 x 2,5 g gingival barrier.
- 4 connectors and 6 syringe tips.
- **Ingredients:** Hydrogen peroxide, glycerol, sodium bicarbonate, potassium nitrate, carbomer.



## INDICATION LIST

PRODUCT NAME	SCORE	POST EXTRACTION SOCKET GRAFTING	POST EXTRACTION SOCKET GRAFTING (NO IMPLANT SCHEDULED)	PERI IMPLANT (SIMULTANEOUS IMPLANT & GRAFT)	GBR FOR DELAYED IMPLANT PLACEMENT	SINUS LIFT (CRESTAL APPROACH)
Powerbone (Flexible) Socket Cone	5	★★★	X	★	★	X
Powerbone Dental Putty	25	★★★	X	★★★	★★★	★★★
Powerbone Granule	16	★	X	★	★★	★★
Powerbone Biphasic Granule	16	X	★★★	X	★★	★
Powerbone Putty	7	★	X	★	X	★★
Powerbone (Flexible) Peri-Implant Ring	6	X	X	★★	★	X
Powerbone Cortical Plate	4	X	X	X	X	X
Powerbone Barrier Membrane	23	★	★★	★★	★★★	★★
Powerbone Flexible Graft	7	X	X	★★	★	X
Powerbone Stick/Block	2	X	X	X	X	X
Powerbone Membrane Tack / Pin Kit	18	★	★★	★	★	★★
Powerbone Fixation Screw	9	X	X	X	X	X
Powerbone Fixation Kit	9	X	X	X	X	X

★★★ : perfect   ★★ : very suitable   ★ : suitable   X : not suitable

SINUS LIFT (LATERAL APPROACH)	RIDGE AUGMENTATION (ONLAY GRAFT FOR WIDTH)	RIDGE AUGMENTATION (KHOURY TECHNIQUE)	RIDGE AUGMENTATION (RING TECHNIQUE)	BONE CYST GRAFTING	BLOCK GRAFT (AUTOGENOUS)	PRODUCT NAME
X	X	X	X	X	X	Powerbone (Flexible) Socket Cone
***	*	**	**	***	**	Powerbone Dental Putty
**	X	***	**	**	*	Powerbone Granule
**	*	**	**	**	**	Powerbone Biphasic Granule
**	X	X	X	*	X	Powerbone Putty
X	X	X	***	X	*	Powerbone (Flexible) Peri-Implant Ring
X	*	***	X	X	X	Powerbone Cortical Plate
**	**	**	***	**	***	Powerbone Barrier Membrane
X	***	X	X	*	*	Powerbone Flexible Graft
X	**	X	X	X	X	Powerbone Stick/Block
**	**	X	***	**	*	Powerbone Membrane Tack / Pin Kit
X	***	***	X	X	X	Powerbone Fixation Screw
X	***	***	X	X	X	Powerbone Fixation Kit



# PRODUCT REFERENCE AND SIZES



## PRODUCT REFERENCE AND SIZES

### Powerbone Stick & Block & Plug & Wedge



Reference Code	Size	Volume	Reference Code	Size	Volume
PS44204	4x4x20 mm(4 pc)	8,10 cc	PS101040	10x10x40 mm	9,95 cc
PS44205	4x4x20 mm(5 pcs)	10,13 cc	PS1010402	10x10x40 mm	19,90 cc
PS44206	4x4x20 mm(6 pcs)	12,15 cc	PSC420	4x20 mm	2,60 cc
PS55204	5x5x20 mm(4 pcs)	16,50 cc	PSC520	5x20 mm	3,24 cc
PS55205	5x5x20 mm(4 pcs)	20,63 cc	PSC4204	4x20 mm	10,40 cc
PS55206	5x5x20 mm(6 pcs)	24,76 cc	PSC5204	5x20 mm	12,96 cc
PS5520	5x5x20 mm	4,13 cc	PW062530 (W)	6x25x30 mm	5,15 cc
PS5634 (P)	5x6x34 mm	8,42 cc	PW082530 (W)	8x25x30 mm	7,65 cc
PS6717 (P)	6x7x17 mm	5,89 cc	PW102530 (W)	10x25x30 mm	10,15 cc
PS6734 (P)	6x7x34 mm	11,78 cc	PW122530 (W)	12x25x30 mm	15,15 cc
PS8820 (B)	8x8x20 mm	10,56 cc	PW142530 (W)	14x25x30 mm	20,15 cc
PS101020 (B)	10x10x20 mm	16,50 cc	PW061520 (B)	6x15x20 mm	2,06 cc
PS151520 (B)	15x15x20 mm	24,50 cc	PW081520 (B)	8x15x20 mm	2,75 cc
PS81216	8x12x16 mm	12,66 cc	PW101520 (B)	10x15x20 mm	3,44 cc
PS44202	4x4x20 mm	4,05 cc	PW121520 (B)	12x15x20 mm	4,13 cc
PS44201	4x4x20 mm	2,03 cc	PW141520 (B)	14x15x20 mm	4,82 cc

## PRODUCT REFERENCE AND SIZES

### Powerbone Granule



### Powerbone Granule in the Bottle



Reference Code	Size	Volume	Reference Code	Size	Volume
PG02501005	0.25-1 mm	0,5 cc	PG020415	2-4 mm	15 cc
PG02501010	0.25-1 mm	1 cc	PG020420	2-4 mm	20 cc
PG02501020	0.25-1 mm	2 cc	PG020430	2-4 mm	30 cc
PG05001005	0.5-1 mm	0,5 cc	PG030505	3-5 mm	5 cc
PG05001010	0.5-1 mm	1 cc	PG030510	3-5 mm	10 cc
PG05001020	0.5-1 mm	2 cc	PG030515	3-5 mm	15 cc
PG05001050	0.5-1 mm	5 cc	PG030520	3-5 mm	20 cc
PG05001075	0.5-1 mm	7,5 cc	PG0305230	3-5 mm	30 cc
PG05001100	0.5-1 mm	10 cc	PG040705	4-7 mm	5 cc
PG10002005	1-2 mm	0,5 cc	PG0407075	4-7 mm	7,5 cc
PG10002010	1-2 mm	1 cc	PG040710	4-7 mm	10 cc
PG10002020	1-2 mm	2 cc	PG040715	4-7 mm	15 cc
PG10002050	1-2 mm	5 cc	PG040720	4-7 mm	20 cc
PG10002075	1-2 mm	7,5 cc	PG040730	4-7 mm	30 cc
PG10002100	1-2 mm	10 cc	PG070905	7-9 mm	5 cc
PG10002150	1-2 mm	15 cc	PG0709075	7-9 mm	7,5 cc
PG10002200	1-2 mm	20 cc	PG070910	7-9 mm	10 cc
PG10002300	1-2 mm	30 cc	PG070915	7-9 mm	15 cc
PG020405	2-4 mm	5 cc	PG070920	7-9 mm	20 cc
PG0204075	2-4 mm	7,5 cc	PG070930	7-9 mm	30 cc
PG020410	2-4 mm	10 cc			

Reference Code	Size	Volume	Reference Code	Size	Volume
PCSGB02501005	0.25-1 mm	0,5 cc	PCSGBI0002005	1-2 mm	0,5 cc
PCSGB02501010	0.25-1 mm	1 cc	PCSGBI0002010	1-2 mm	1 cc
PCSGB02501020	0.25-1 mm	2 cc	PCSGBI0002020	1-2 mm	2 cc
PCSGB05001005	0.5-1 mm	0,5 cc	PCSGBI0002050	1-2 mm	5 cc
PCSGB05001010	0.5-1 mm	1 cc	PCSGBI0002100	1-2 mm	10 cc
PCSGB05001020	0.5-1 mm	2 cc			
PCSGB05001050	0.5-1 mm	5 cc			
PCSGB05001100	0.5-1 mm	10 cc			

# PRODUCT REFERENCE AND SIZES

## Powerbone Putty



Reference Code	Volume
PP005	0,5 cc
PP006	0,6 cc
PP01	1 cc
PP02	2 cc
PP03	3 cc
PP05	5 cc
PP06	6 cc
PP075	7,5 cc
PP10	10 cc

## Powerbone Flex



## Powerbone Gel



Reference Code	Volume
PG01	1 cc
PG02	2 cc
PG03	3 cc
PG05	5 cc
PG06	6 cc
PG10	10 cc

## Powerbone Dental Putty



Reference Code	Volume
PDP030	0,3 cc
PDP050	0,5 cc
PDP075	0,75 cc
PDP100	1 cc

Reference Code	Size	Volume
PFS25254	25x25x4mm	2,50 cc
PFS25504	25x50x4mm	5,00 cc
PFS25505	25x50x5mm	6,25 cc
PFS50504	50x50x4mm	10,00 cc
PFS201005	20x100x5mm	10,00 cc
PFS201006	20x100x6mm	12,00 cc
PFS25754	25x75x4mm	7,50 cc
PFS25804	25x80x4mm	8,00 cc
PFS25805	25x80x5mm	10,00 cc
PFS60606	60x60x6mm	21,60 cc
PFS35605	35x60x5mm	10,50 cc
PFS75405	75x40x5mm	15,00 cc
PFS25252	25x25x2mm	2,50 cc
PFS25502	25x50x2mm	5,00 cc
PFS25802	25x80x2mm	8,00 cc
PFS35602	35x60x2mm	10,50 cc
PFS60602	60x60x2mm	21,60 cc

# PRODUCT REFERENCE AND SIZES

## Powerbone Barrier Membrane



Reference Code	Size
PM1520	15X20 mm
PM1525	15x25 mm
PM2020	20x20 mm
PM2025	20x25 mm
PM2030	20x30 mm
PM2530	25x30 mm
PM3040	30x40 mm
PM1520-5	15x20 mm(5pcs)
PM1525-5	15x25 mm(5pcs)
PM2020-5	20x20 mm(5pcs)
PM2030-5	20x30 mm(5pcs)

## Powerbone Chondro Matrix



Reference Code	Size
PK202011	20-20-1,1 mm
PK203011	20-30-1,1 mm
PK251711	25-17-1,1 mm
PK252511	25-25-1,1 mm
PK253511	25-35-1,1 mm
PK353511	35-35-1,1 mm

## Powerbone Bone Cement



Reference Code	Size
PVC-LV-20	20 g (LV Radiopaque Vertebroplasty Bone Cement)
PVC-LV-40	40 g (LV Radiopaque Vertebroplasty Bone Cement)
PKC-LV-20	20 g (LV Radiopaque Kyphoplasty Bone Cement)
PKC-LV-40	40 g (LV Radiopaque Kyphoplasty Bone Cement)
POC-SV40	40 g (Radiopaque Bone Cement Normal for ortho)
P-PC-HV	40 g (Radiopaque Bone Cement-HV for ortho)

# PRODUCT REFERENCE AND SIZES

## Powerbone PLDLLA-TCP 30 Interference Screws



Reference Code	Size
SCRW-PPT30IS720	7 mm x 20 mm
SCRW-PPT30IS725	7 mm x 25 mm
SCRW-PPT30IS730	7 mm x 30 mm
SCRW-PPT30IS820	8 mm x 20 mm
SCRW-PPT30IS825	8 mm x 25 mm
SCRW-PPT30IS830	8 mm x 30 mm
SCRW-PPT30IS835	8 mm x 35 mm
SCRW-PPT30IS920	9 mm x 20 mm
SCRW-PPT30IS925	9 mm x 25 mm
SCRW-PPT30IS930	9 mm x 30 mm
SCRW-PPT30IS935	9 mm x 35 mm
SCRW-PPT30IS1025	10 mm x 25 mm
SCRW-PPT30IS1030	10 mm x 30 mm
SCRW-PPT30IS1025	10 mm x 25 mm
SCRW-PPT30IS1030	10 mm x 30 mm
SCRW-PPT30IS1035	10 mm x 35 mm
SCRW-PPT30IS1135	10 mm x 35 mm

## Powerbone PLA Interference Screws



Reference Code	Size
SCRW-PPIS720	7 mm x 20 mm
SCRW-PPIS725	7 mm x 25 mm
SCRW-PPIS730	7 mm x 30 mm
SCRW-PPIS820	8 mm x 20 mm
SCRW-PPIS825	8 mm x 25 mm
SCRW-PPIS830	8 mm x 30 mm
SCRW-PPIS920	9 mm x 20 mm
SCRW-PPIS925	9 mm x 25 mm
SCRW-PPIS930	9 mm x 30 mm
SCRW-PPIS1020	10 mm x 20 mm
SCRW-PPIS1025	10 mm x 25 mm
SCRW-PPIS1030	10 mm x 30 mm

## PRODUCT REFERENCE AND SIZES

### Powerbone TRANSBLEPH Device



#### Reference Code

#### Size

C-EST-PTD30	3,0 mm (height of pins)
C-EST-PTD35	3,5 mm (height of pins)

### Powerbone FOREHEAD Lift Device



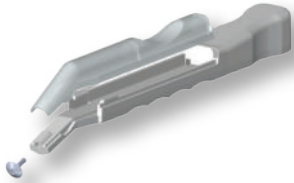
#### Reference Code

#### Size

C-EST-PFLD30	3,0 mm (height of pins)
C-EST-PFLD35	3,5 mm (height of pins)

## PRODUCT REFERENCE AND SIZES

Bone Scraper



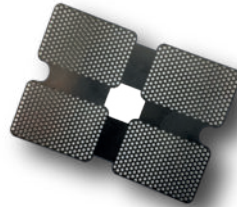
Reference Code

Size

PBS

1.48cm x 16cm (1pc)

Titanium Membrane (Grade5)



Reference Code

Size

Power-396.5000117

15x20 mm

Titanium Pin Set (Grade5)



Reference Code

Size

Power-398.0002530

2.5x3,00mm

Power-398.0002550

2.5x5,00mm

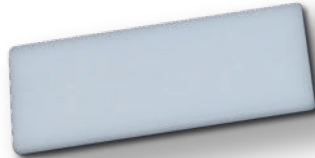
# PRODUCT REFERENCE AND SIZES

## Allograft



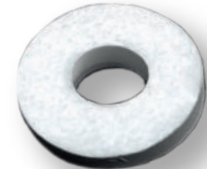
Reference Code	Size	Volume
PWB2024FD	0.25-1 mm	0,5 cc
PWB2025FD	0.25-1 mm	1 cc
PWB2027FD	0.25-1 mm	2 cc
PWB2028FD	0.25-1 mm	5 cc

## Cortical Plate



Reference Code	Size
PLT-PB219HPS115	25x10x1 mm

## Peri-Implant Ring



Reference Code	Size
PFSC320	10x3,3x3,5 mm
PFSC620	10x3,3x6,5 mm
PFSS71214	10x3,3x15 mm

## Biphasic Granule (90% HA 10% $\beta$ -TCP)



Reference Code	Size	Volume
PS5634	5x6x34mm	8,42 cc
PS6717	6x7x17mm	5,89 cc
PS6734	6x7x34mm	11,78 cc

Reference Code	Size	Volume
PGB05001005HA	0.5-1 mm	0,5 cc
PGB05001010HA	0.5-1 mm	1 cc
PGB05001020HA	0.5-1 mm	2 cc
PGB05001050HA	0.5-1 mm	5 cc
PGB05001150HA	0.5-1 mm	15 cc

## Cranial Plug



## Cone



Reference Code	Size
PFSC820	10 mm x 16 mm



## PRODUCT REFERENCE AND SIZES

### Fixation Screw



aggressive model

Reference Code	Size
Power-TPSS (Power-397.2000680)	6,80 mm
Power-TPSL (Power-397.2000880)	8,80 mm
Power-TPSM (Power-397.2001080)	10,80 mm
Power-TPSK (Power-397.2001280)	12,80 mm

### Bone Screw



passive model

Reference Code	Size
Power-TPSS (Power-397.3000007)	7 mm
Power-TPSL (Power-397.3000010)	10 mm
Power-TPSM (Power-397.3001013)	13 mm

# PRODUCT REFERENCE AND SIZES

## Powerbone Fixation Set Box



### Powerbone Fixation Screws

Reference Code	Size
Power-TPSS (Power-397.2000680)	6,80 mm
Power-TPSL (Power-397.2000880)	8,80 mm
Power-TPSM (Power-397.2001080)	10,80 mm
Power-TPSK (Power-397.2001280)	12,80 mm

### Powerbone Dental Titanium Pin

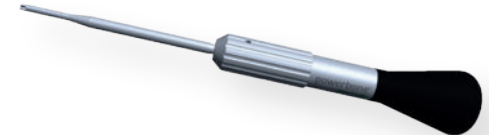
Reference Code	Size
Power-398.0002530	2.5x3,00mm
Power-398.0002550	2.5x5,00mm

### Powerbone Bone Screws

Reference Code	Size
Power-TPSS (Power-397.3000007)	7 mm
Power-TPSL (Power-397.3000010)	10 mm
Power-TPSM (Power-397.3001013)	13 mm

Reference Code  
Power-396.5000138

### Powerbone Fixation and Bone Screw Driver



Reference Code  
Power-397.2000000INS

### Powerbone Drill 1,1 mm (for Fixation and Bone Screw)



Reference Code  
Power-396.5000137

### Powerbone Fixation and Bone Screw Driver for Motor



Reference Code  
Power-396.5000136

## PRODUCT REFERENCE AND SIZES

(Home Use)  
POWERBRIGHT  
%6 HP



Reference Code

PWA06-01

(Office Use)  
POWERBRIGHT PLUS  
%35 HP



Reference Code

PPWA35-01

# BONEGRAFT<sup>®</sup>

## BIOMATERIALS

Biyolojik Malzemeler San. ve Tic. A.Ş.  
Ege Üniversitesi Sit. İdege Teknoloji Geliştirme Bölgesi A.Ş.

Head Office : Erzene Mahallesi Ankara Cad. No:172/67  
Ege Üniversitesi Sit İdege Teknoloji Geliştirme Bölgesi  
BORNOVA / İZMİR / TÜRKİYE P.K.: 35100

Branch Office : 7410 Sokak No:8 Kemalpaşa Mahallesi  
PINARBAŞI-BORNOVA / İZMİR / TÜRKİYE

Factory : Keçiliköy OSB Mahallesi İsmail Kahraman Cad.  
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