



bioceramed

biomaterials for tissue regeneration

By Ceramed | Cerâmicos para Aplicações Médicas S.A.

CALCIUM PHOSPHATE SUBSTITUTES FOR BONE REGENERATION

ORTHOPEDIC/TRAUMA

DENTAL

SPINE

CRANIOFACIAL

ABOUT US

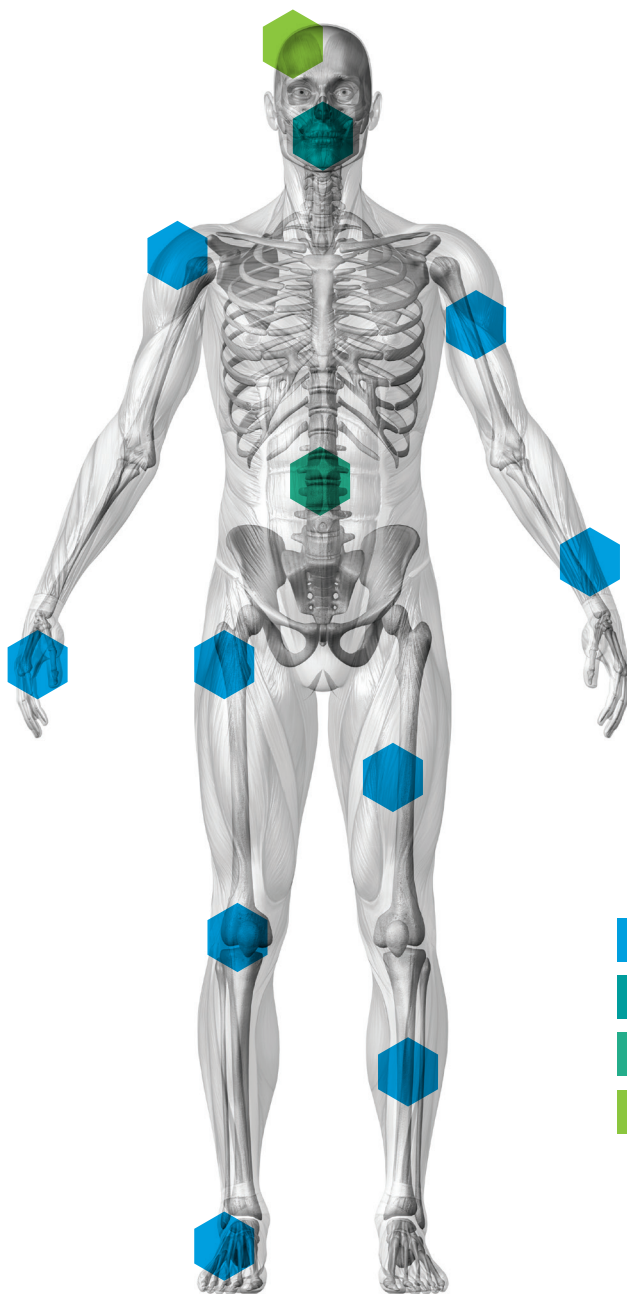
BioCeramed is a European healthcare company, specialized in the design, manufacture and sale of calcium phosphate substitutes for bone regeneration.

Currently, **Bioceramed** sells its products in over 50 countries. The company is ISO 13485:2016 certified. All the production complies with the European directive for medical devices and regulatory requirements.

BioCeramed is the result of the experience of Ceramed, a recognized coating company that has coated more than 1 million implants since 2005.

Innovation is at the core of **BioCeram**ed's strategy. Our R&D team, in collaboration with academic partners, develops solutions to improve the performance of medical devices. **BioCeram**ed has designed and developed innovative biomaterials for bone regeneration in orthopedic, trauma, spine, dental and craniofacial surgeries.

BIOCERAMED IS YOUR SPECIALIST IN BONE REGENERATION.



ORTHOPEDIC/TRAUMA

DENTAL

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3D BONE SUBSTITUTES



Neobone®

- Synthetic bone substitute;
- Biphasic mixture of calcium phosphates (75% HA and 25% β -TCP);
- Rapidly osteointegrated to promote bone regeneration;
- Presents interconnected porosity, allowing a total vascularization of the implant;
- Total porosity: 60% – 80%. Cell size: 200 μ m – 500 μ m;
- Used in non-load-bearing applications. Compressive strength > 5 MPa;
- Sterilized by gamma irradiation;
- Forms: blocks, wedges, cylinders and granules;
- Examples of applications: treatment of fractures, pseudarthrosis, arthrodesis, osteotomies, bone defects, spinal injuries and dental defects.



ORTHOPEDIC/TRAUMA

DENTAL

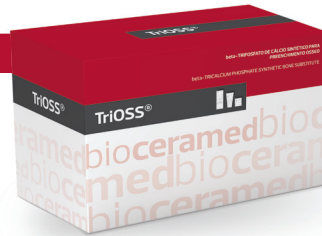
SPINE

CRANIOFACIAL



TriOSS®

- Synthetic bone substitute;
- Composed of > 95% β -TCP;
- Enhances and accelerates new bone formation and improves bone regeneration;
- Presents interconnected porosity, allowing a total vascularization of the implant;
- Total porosity: 60% – 80%. Cell size: 200 μ m – 500 μ m;
- Used in non-load-bearing applications. Compressive strength > 0.2 MPa;
- Sterilized by gamma irradiation;
- Forms: blocks, wedges, cylinders and granules;
- Examples of applications: treatment of fractures, spinal injuries, bone tumours, bone cysts, alveolar filling and sinus lift.



ORTHOPEDIC/TRAUMA

DENTAL

SPINE

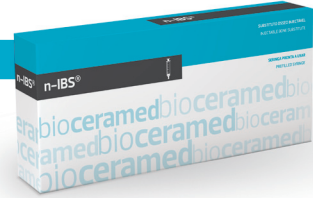
CRANIOFACIAL

INJECTABLE BONE SUBSTITUTES



n-IBS®

- Synthetic bone substitute;
- Paste of hydroxyapatite nanoparticles in water (30%, w/w);
- Particle size < 50 nm. Specific surface area of 80 m²/g;
- Ready to use prefilled syringe;
- Rapidly osteointegrated;
- Remains as a soft gel throughout the implantation and healing processes;
- Used in non-load-bearing applications;
- Sterilized by gamma irradiation;
- Examples of applications: treatment of fractures, bone tumours, bone cysts, defects in extremities and filling cages in spinal surgeries.



ORTHOPEDIC/TRAUMA

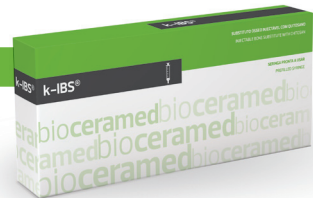
DENTAL

SPINE



k-IBS®

- Synthetic bone substitute;
- Putty like gel composed of calcium phosphate granules (75% HA and 25% β -TCP) dispersed in a polymeric matrix (chitosan);
- Ready to use prefilled syringe;
- Acts as a temporary osteoconductive scaffold for the ingrowth of bone;
- Remains as a soft gel throughout the implantation and healing processes;
- Used in non-load-bearing applications;
- Sterilized by gamma irradiation;
- Examples of applications: bone fractures, bone tumours, bone cysts and spinal injuries.



ORTHOPEDIC/TRAUMA

SPINE

BONE SUBSTITUTE CEMENTS



Neocement®

- Synthetic bone substitute;
- Composed of three components: a solid phase of calcium phosphate (TTCP and β -TCP), a liquid phase (aqueous solution of citric acid and glucose) and chitosan as adjuvant;
- Results in a hydroxyapatite cement after the mixture of the three components;
- Moldable into the desired shape and easy to apply;
- Working time: 2 to 5 minutes;
- Setting time: 8 minutes;
- Rapidly osteointegrated;
- Acts as a temporary osteoconductive scaffold for the ingrowth of bone;
- Used in non-load-bearing applications. Compressive strength ≥ 4 MPa;
- Sterilized by gamma irradiation;
- Examples of applications: filling bone defects, fracture reduction, bone reconstruction, cranioplasty, craniofacial reconstruction.



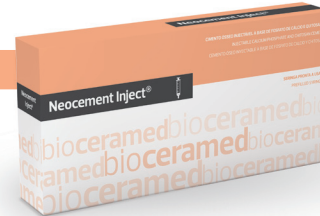
ORTHOPEDIC/TRAUMA

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Neocement Inject® F and P

- Synthetic bone substitute;
- F system is a prefilled syringe with two components: a solid phase of calcium phosphate (TTCP and β -TCP) and chitosan plus a liquid phase (aqueous solution of citric acid and glucose);
- P system is a prefilled syringe with a solid phase of calcium phosphate (TTCP and β -TCP) and chitosan plus a separated vial with a liquid phase (aqueous solution of citric acid and glucose);
- Results in a hydroxyapatite cement after the mixture of all components inside the syringe;
- Easy implantation via simple injection;
- Working time: 2 to 5 minutes;
- Setting time: 8 minutes;
- Rapidly osteointegrated;
- Acts as a temporary osteoconductive scaffold for the ingrowth of bone;
- Used in non-load-bearing applications. Compressive strength ≥ 4 MPa;
- Sterilized by gamma irradiation;
- Examples of applications: subchondroplasty, filling bone defects, fracture reduction, bone reconstruction, cranioplasty, craniofacial reconstruction.



ORTHOPEDIC/TRAUMA

Neobone® and TriOSS® Shapes produced in a regular basis					
Blocks		Wedges		Cylinders	
Dimensions	Units (per box)	Dimensions	Units (per box)	Dimensions	Units (per box)
10×10×5 mm	1 / 3 / 5	20×15×8 mm	1	25×9.5	1
15×15×20 mm	1 / 3 / 5	20×15×10 mm	1	25×10.5	1
15×15×30 mm	1 / 3 / 5	20×15×12 mm	1	25×12.5	1
10×30×5 mm	1 / 3 / 5	20×15×14 mm	1	25×15	1
10×10×20 mm	1 / 3 / 5			25×17.5	1
20×20×10 mm	1 / 3 / 5				
10×30×10 mm	1 / 3 / 5				

Neobone® and TriOSS® Granular shapes produced in a regular basis					
Irregular Granules				Spherical Granules	
Dimensions	Qt (per box)	Dimensions	Qt (per box)	Dimensions	Qt (per box)
0.5 – 1 mm	0.5 g	2 – 4 mm	2. 5 cc	75 – 125 µm	0.5 g / 1 g / 2 g
	1 g		5 cc	125 – 355 µm	0.5 g / 1 g / 2 g
	2 g		10 cc	355 – 500 µm	0.5 g / 1 g / 2 g
1 – 2 mm	0.5 g	4 – 6 mm	15 cc	500 – 1000 µm	0.5 g / 1 g / 2 g
	1 g		20 cc	1000 – 2000 µm	0.5 g / 1 g / 2 g
	2 g		30 cc		

n-IBS® Quantities produced in a regular basis	
Syringes per box	Total volume
1	1 cc
1	3 cc
1	5 cc
2	10 cc
3	15 cc

k-IBS® Quantities produced in a regular basis	
Syringes per box	Total volume
1	1 cc
1	3 cc
1	5 cc
2	10 cc
3	15 cc

Neocement® Quantities produced in a regular basis	
10 g	
20 g	

Neocement Inject® P and Neocement Inject® F Quantity produced in a regular basis	
10 g	



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Our solutions

bioceramed offers different of solutions for bone regeneration in orthopedic, spinal and dental areas.

We provide 3D structures, injectable and cement bone substitutes.

Neobone®	
TriOSS®	
n-IBS®	
k-IBS®	
Neocement®	