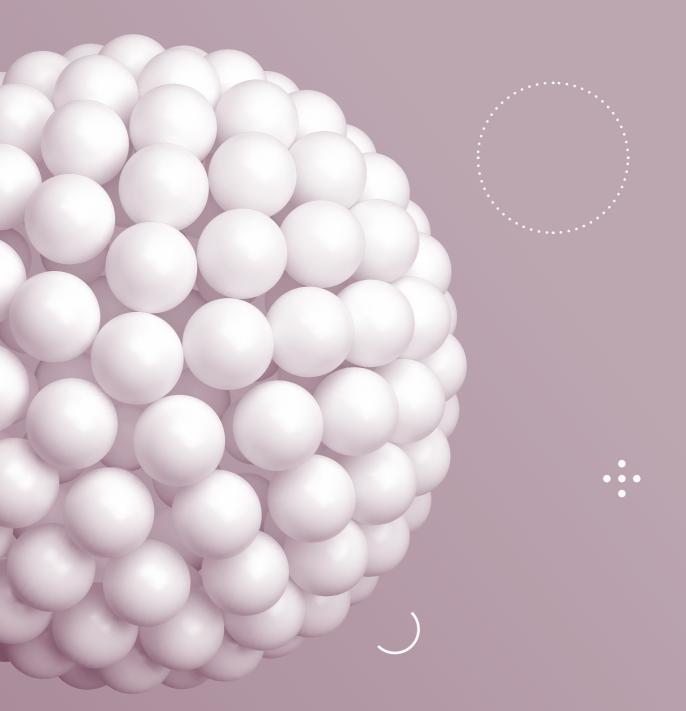
# SpherHA



The shape of bone healing Nano-structured bio-mimetic HydroxyApatite

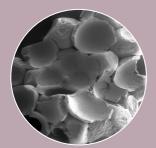
## Nano-structured bio-mimetic HydroxyApatite

SpherHA is a line of innovative synthetic bone substitutes, based on bio-mimetic nano-structured hydroxyapatite.

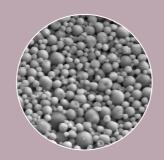
SpherHA is available in dense granules, porous chips, injectable paste and moldable crunch in a wide range of sizes, to respond in a practical and functional way to multiple implant requirements in oral-maxillo facial, orthopedics, traumatology and spine surgeries.

SpherHA hydroxyapatite is a calcium phosphate compound that is remarkably similar to the human mineral bone matrix in composition, structure and size of nano-crystals. Ca / P ratio of 1.67 is the same of the human bone apatite. SpherHA is a bio-mimetic bone substitute. Its high surface/volume ratio makes it an ideal scaffold for osteointegration and regeneration of bone defects. The highly porous and interconnected structure is optimally osteoconductive, promoting cellular colonization, nutrients exchanges and rapid vascularization.

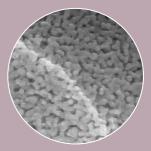
Thanks to specific composition and nano-metric dimension of composing crystals, SpherHA bone substitutes are completely degraded by osteoclastic activity and physiologically remodelled into new vital bone tissue.



MACRO-POROSITY 200-500 μm



MICRO-POROSITY 2-3 µm



1ANO-POROSITY 40-80 nm



- Complete biocompatibility.
- Highly porous and interconnected structure to support optimal osteoconduction.
- High surface/volume ratio for a better biological response.
- Excellent chemical-physical stability.
- Complete remodeling in physiological times.

## SpherHA

## SpherHA Granules & Chips

Dense granules and porous chips available in two different granulometries (0.5-1 mm and 1-2 mm) and multiple formats (from 0.5 cc to 50 cc). Dense granules are compact and similar to human cortical bone; their remodeling time is slower than porous chips, which look alike cancellous bone. The spherical shape and uniform size of SpherHA granules allow the optimal filling of large irregular defects and the formation of homogeneous inter-granular pores, improving osteointegration and bone remodeling.

#### Indications

Filling of small and medium size bone defects, maxillary sinus lifts, periimplant defects and post-extraction sockets. Also indicated for the filling of vertebral cages, peri-prosthetic and cavitary bone defects.

## SpherHA Injectable paste

Injectable paste with a high-density mixture of nano-crystals and micro-powder of nano-structured hydroxyapatite, in a phosphate-buffered saline solution with physiological pH; available in a wide range of formats (from 0.25 cc to 14 cc). To precisely allow in situ application, two luer-lock accessories are available: a small tip for dental use and a 10 cm-long cannula for orthopedics and neurosurgery applications.

### Indications

Filling of periodontal and peri-implant defects, maxillary sinus augmentation with crestal access. Indicated also for vertebral cages fillings, comminuted fractures synthesis and filling of the screw holes following removal of osteosynthesis metal implants.

## SpherHA Moldable Crunch

The Crunch formulation, with the addition of micro-granules with specific granulometry, shows a higher nano-structured hydroxyapatite amount than the injectable paste, resulting in an extremely moldable and stable mixture even in a bleeding environment. The open-mouth syringes allow the extrusion of the product in a cylindrical shape, easily adaptable to any implantation site.

### Indications

Filling of cavitary and non-cavitary bone defects in orthopedics, traumatology and dental surgery. It is also indicated for spinal cages fillings, even extensively fenestrated, in spinal fusions and arthrodesis.







## Product list

## **Dense Granules**

SHA-D0501	SpherHA dense granules (0,5-1 mm)	1 btl.	0,5 cc		
SHA-D0506	SpherHA dense granules (0,5-1 mm)	6 btl.	0,5 cc		
SHA-D1001	SpherHA dense granules (0,5-1 mm)	1 btl.	1 cc		
SHA-D1006	SpherHA dense granules (0,5-1 mm)	6 btl.	1 cc		
SHA-D2001 SHA-D2006 SHA-D4001 SHA-D4006	SpherHA dense granules (0,5-1mm) SpherHA dense granules (0,5-1mm) SpherHA dense granules (0,5-1mm) SpherHA dense granules (0,5-1mm)	1 btl. 6 btl. 1 btl. 6 btl.	2 cc 2 cc 2 cc 2 cc 2 cc		
SHA-D20201 SHA-D20501 SHA-D21001 SHA-D22001 SHA-D23001 SHA-D24001 SHA-D25001	SpherHA dense granules (1 -2 mm) SpherHA dense granules (1-2 mm)	1 btl. 1 btl. 1 btl. 1 btl. 1 btl. 1 btl. 1 btl.	2 cc 5 cc 10 cc 20 cc 30 cc 40 cc 50 cc		
Porous Chips					
SHA-P0501	SpherHA porous chips (0,5-1 mm)	1 btl.	0,5 cc		
SHA-P0506	SpherHA porous chips (0,5-1 mm)	6 btl.	0,5 cc		
SHA-P050S1 SHA-P050S3	SpherHA porous chips (0,5-1 mm) SpherHA porous chips (0,5-1 mm) (filter cap syr)	1 syr 3 syr	0,5 cc 0,5 cc		
SHA-P1001	SpherHA porous chips (0,5-1 mm)	1 btl.	1 cc		
SHA-P1006	SpherHA porous chips (0,5-1 mm)	6 btl.	1 cc		
SHA-P20101	SpherHA porous chips (1-2mm)	1 btl.	1 cc		
SHA-P20106	SpherHA porous chips (1-2mm)	6 btl.	1 cc		
SHA-P20201	SpherHA porous chips (1-2mm)	1 btl.	2 cc		
SHA-P20206	SpherHA porous chips (1-2mm)	6 btl.	2 cc		
SHA-P20501 SHA-P21001 SHA-P22001 SHA-P23001 SHA-P24001 SHA-P25001	SpherHA porous chips (1-2 mm) SpherHA porous chips (1-2 mm) SpherHA porous chips (1-2 mm) SpherHA porous chips (1-2 mm) SpherHA porous chips (1-2 mm)	1 btl. 1 btl. 1 btl. 1 btl. 1 btl. 1 btl.	5 cc 10 cc 20 cc 30 cc 40 cc 50 cc		







## SpherHA

## Injectable Paste

SHA-PA01001	SpherHA Injectable paste	1 syr.	1 cc
SHA-PA2001	SpherHA Injectable paste	1 syr.	2 cc
SHA-PA3001	SpherHA Injectable paste	1 syr.	3 cc
SHA-PA5001	SpherHA Injectable paste	1 syr.	5 cc
SHA-PA10001	SpherHA Injectable paste	1 syr.	10 cc
SHA-PA14001	SpherHA Injectable paste	1 syr.	14 cc







## Moldable Crunch

SHA-CR0101	SpherHA Mouldable crunch	1 syr.	1cc
SHA-CR2001	SpherHA Mouldable crunch	1 syr.	2 cc
SHA-CR3001	SpherHA Mouldable crunch	1 syr.	3 cc
SHA-CR5001	SpherHA Mouldable crunch	1 syr.	5 cc
SHA-CR10001	SpherHA Mouldable crunch	1 syr.	10 cc
SHA-CR14001	SpherHA Mouldable crunch	1 syr.	14 cc





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