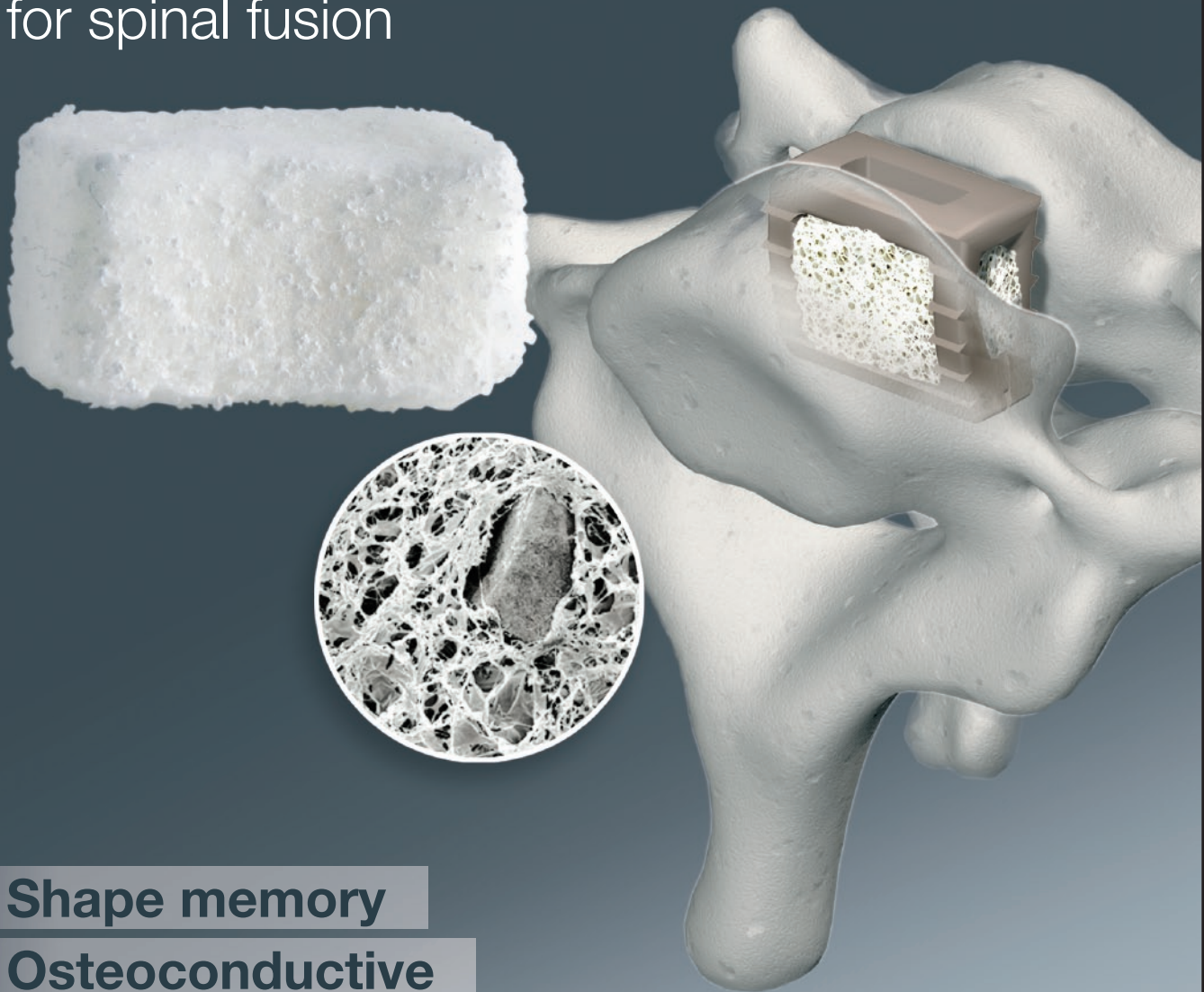


SmartBone™

Osteoconductive haemostatic
absorbable bone matrix
for spinal fusion



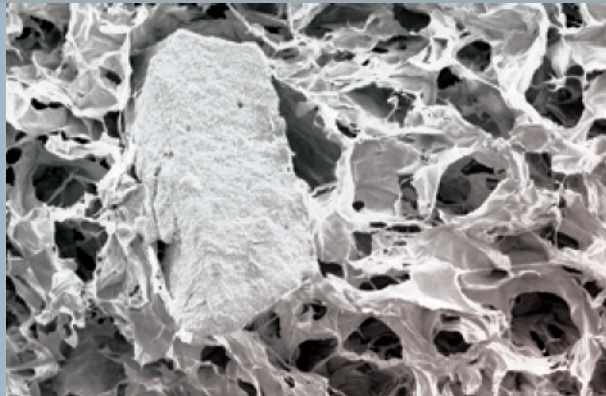
Shape memory

Osteoconductive

Cohesive & resistant

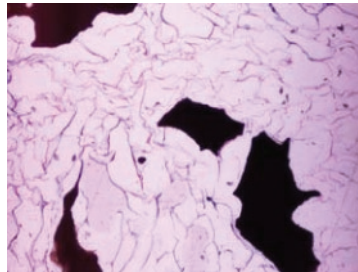
SmartBone™

Osteoconductive, haemostatic and absorbable bone matrix dedicated to spinal fusion. SmartBone is made out of hydroxyapatite (HA), calcium phosphate (TCP) and collagen.

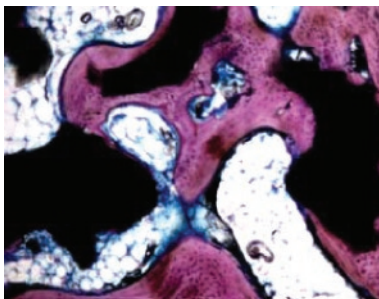


Biochemical specifications

- Triphasic bone substitute with hydroxyapatite (HA) and calcium phosphate (TCP) dispersed in a type I & III collagen matrix.
- Porosity of the bone substitute is optimized on two levels : micro- and macroporosity.
- The collagen is a xenogenic and acellular collagen. This product presents no risk of prion disease transmission. Besides collagen extraction process contains well-known stages of prion, bacteria and virus inactivation.
- Bone remodeling occurs in 3 to 4 months, SmartBone is completely absorbable.



Histological section (x 4) of SmartBone™ before implantation : bone substitute granules (black) are surrounded by the porous collagen matrix.



Histological section (x 5) of SmartBone™, 3 months after implantation : bone substitute granules (black) are surrounded by new bone (purple). Perfect osteo integration.

Features & Advantages

Shape memory : SmartBone can be compressed and recovers its initial volume after being soaked with saline or blood - allows an optimal filling of the fusion site.

Osteoconductive : This mineralized collagen matrix is made out of three major components of natural bone: hydroxyapatite, calcium phosphate and collagen. The mix of synthetic hydroxyapatite (HAP) and calcium phosphate (TCP) maximizes cellular adhesion and bone formation thanks to hydroxyapatite and the space left by calcium phosphate's resorption allows the formation of a new bone construct. Collagen constitutes a regeneration matrix for osteoblastic development.

Hemostatic : collagen has intrinsic hemostatic properties and act as a sponge. As it retains blood, its volume increases optimizing contact with refreshed bone fusion site. SmartBone can be mixed with blood, bone marrow or autologous bone.

Cohesive and resistant : when dry, and stays entire even after hydration. The collagen matrix and the bone substitute are always cohesive, making SmartBone easy to handle; doesn't split or tear during handling.

Presentation

Available in 2 sizes,
in a double peel package,
sterilized by irradiation :

12 x 12 x 12 mm, volume 1,7cm³
Adapted to cervical interbody fusion

30 x 30 x 6 mm, volume 5,4cm³
Adapted to lumbar interbody fusion

Manufactured in France.



Distributed by :

SmartSpine
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