



SINTLIFE



Resorbable Bone Substitute



Finceramica
regenerative surgery

A winning formula

SINTlife putty, and granules is a resorbable bone substitute made of magnesium-hydroxyapatite nanocrystals, the winning formula for bone generation.

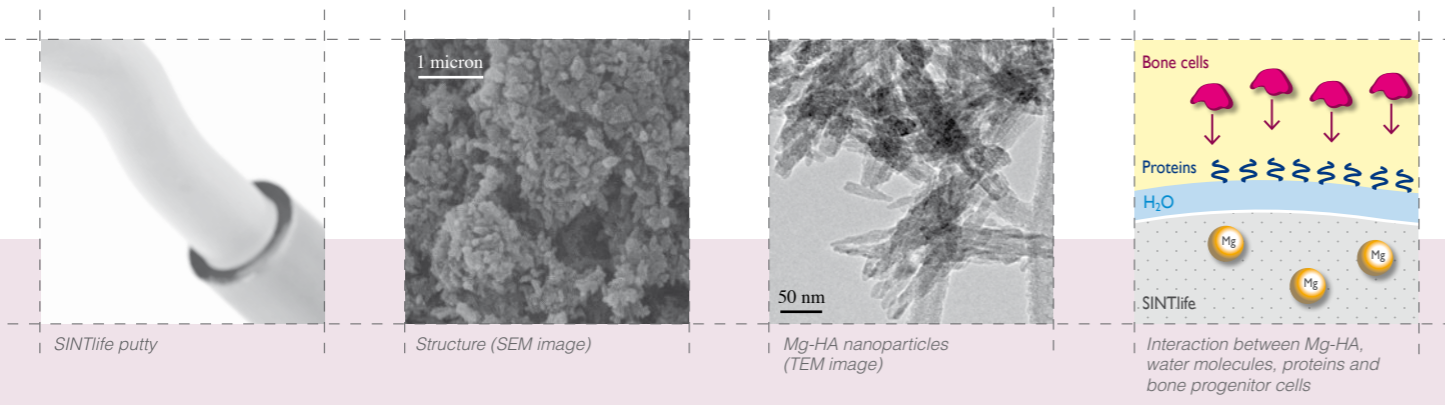
Magnesium ions are introduced into the hydroxyapatite crystal cell in the same position and percentage as in the mineral phase of human bone.

Magnesium-hydroxyapatite just as nature intended

It has been demonstrated that the presence of Mg²⁺ deforms the structure of the hydroxyapatite crystal cell, making it unstable and biologically active. This way, it promotes bone formation as well as the remodelling and fast cell-mediated resorption of the material.

Moreover, the presence of magnesium changes the chemical and physical surface properties of hydroxyapatite, which actively interacts with water molecules* to capture the key proteins involved in osteogenesis.

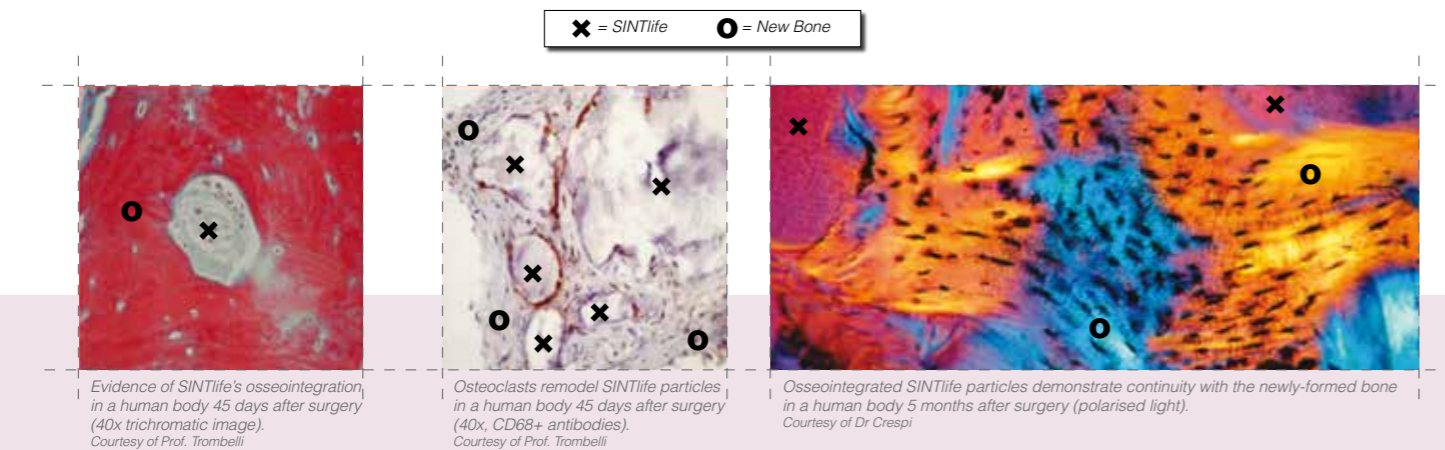
*Bertinetti et al. Langmuir (2009)



Material resorption and new bone formation: a synchronised process

SINTlife is a unique and innovative biomaterial that interacts with bone tissue-forming cells. Its biomimetic chemical composition, structured geometry, and surface properties allow cells to remodel and resorb SINTlife over a physiologically appropriate time frame (6 to 18 months). It remains in situ for the time required for bone growth and maturation. During the remodelling stage, osteoclastic resorption can be noticed around the SINTlife particles* until the bone is fully regenerated. As a result, SINTlife promotes quick and effective physiological bone regeneration.

*Landi et al., J. Mater Sci: Mater Med (2008)



ENGINEERED WITH THE MOST SOPHISTICATED BIOMIMETIC TECHNOLOGIES

PHYSIOLOGICAL CELL-MEDIATED RESORPTION OF THE BIOMATERIAL

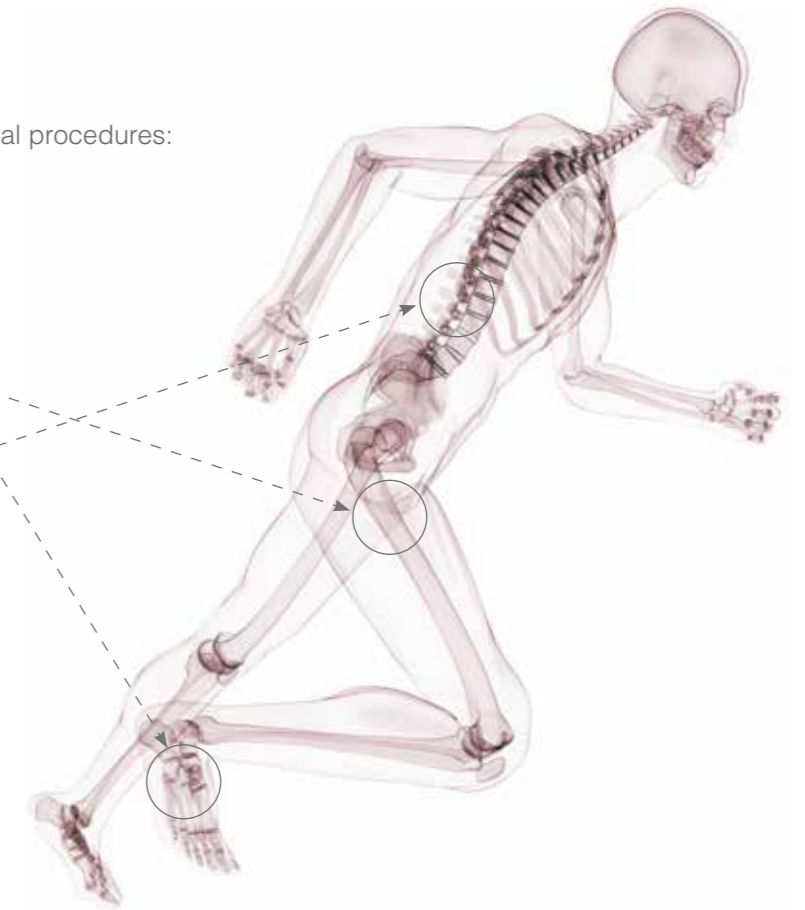
FULLY RESORBED AND REPLACED BY NEW BONE TISSUE

MOULDABLE AND READY FOR USE

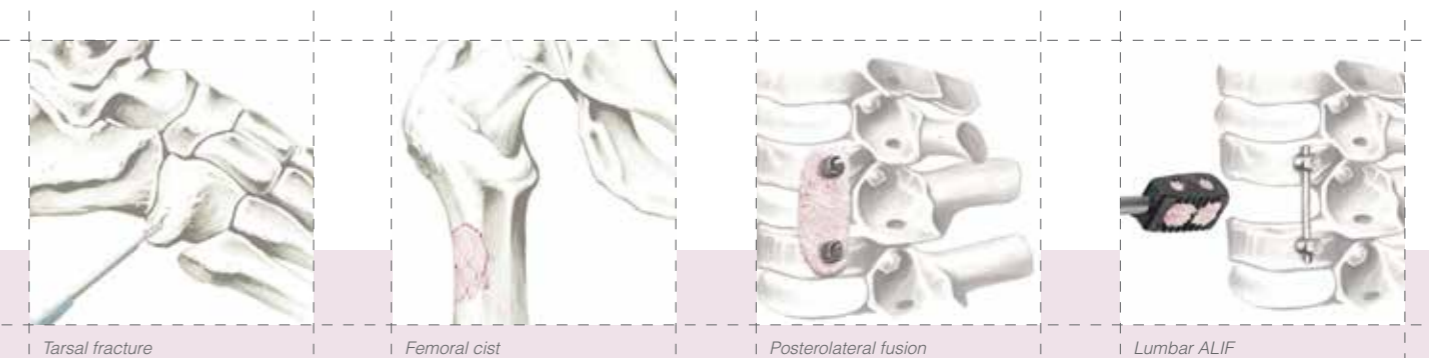
Clinical applications

SINTlife is designed to be used in several surgical procedures:

- **Traumatology**
 - _ Upper and lower extremities
- **Bone void filling**
 - _ Cysts
- **Spinal surgery**
 - _ Cage filling
 - _ Posterolateral fusion



SINTlife is intended to be used to fill bone gaps and voids. It cannot replace standard procedures for the treatment of bone defects. Moreover, it must be used with appropriate mechanical stabilisation and internal fixation devices.





SINTLIFE



Shapes and Sizes



SINTLIFE ORTHO

CODE

Putty (1 cc syringe)	PFS015056-01-00
Putty (2.5 cc syringe)	PFS015056-02-00
Putty (5 cc syringe)	PFS015056-00-00
Putty (10 cc syringe)	PFS015056-05-00



SINTLIFE SPINE

CODE

Putty (1.5 cc syringe)	PFS015057-08-00
Putty (2.5 cc syringe)	PFS015057-04-00
Putty (5 cc syringe)	PFS015057-05-00



SINTLIFE ORTHO

CODE

Microgranules (600-900 microns) - 5 cc	PFS015055-26-00
Microgranules (600-900 microns) - 15 cc	PFS015055-13-00

• Putty



• Granules

