A controlled resorption

Material

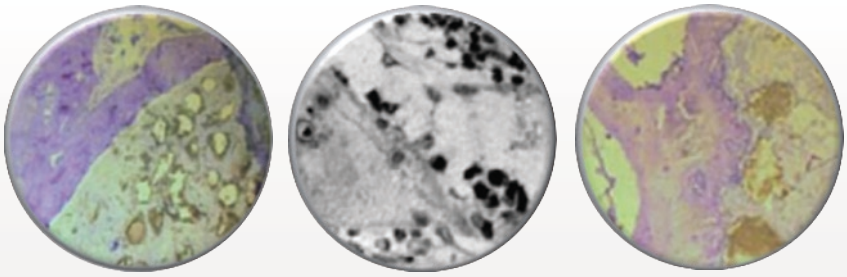
LIGAFIX® interference screws have been designed in Duosorb®, biocomposite material made of **β-TCP** (Tricalcium Phosphate) and 40% **PDLLA** (Poly DL Lactic Acid). This combination provides an osteoconductive, resorbable and bioactive material while ensuring an excellent mechanical resistance and elasticity.

Tricalcium Phosphate (β-TCP) + Poly DL Lactic Acid (PDLLA)

100 % Osteoconductive
100 % Resorbable
100 % Bioactive

Mechanical strength
Elasticity

In vitro et in vivo comparative study [1]



1 month
Toluidine Blue x200

3 months
Toluidine Blue x500

6 months
Toluidine Blue x300

After 1 month, bone tissue is observed directly on the surface of the material.
After 3 months, signs of material resorption become visible.
After 6 months, implant can partially become fragmented as β-TCP particles are progressively released from the polymer matrix.



Toluidine Blue x40

In the meanwhile, pure PDLLA implants do not show signs or resorption, at every implantation time.
Implants are surrounded with conjonctive tissue containing numerous multinucleated cells.

Screws adapted to your technique

LIGAFIX® 30

30% β-TCP + 70% PDLLA
For all types of graft and overall for bone-tendon-bone transplants. Optimizes the mechanical strength, the screw is directly in contact with the bone plug.

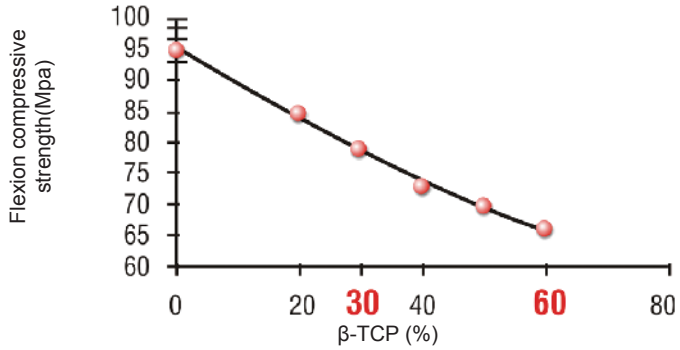
LIGAFIX® 60

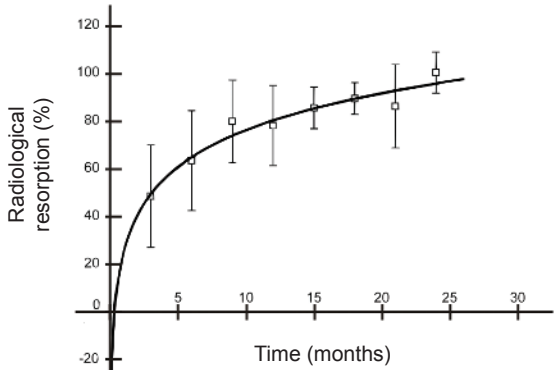
60% β-TCP + 40% PDLLA
Only for ligament transplants.
Optimizes the kinetic of resorption.



2 heads for femoral and tibial fixation
Lengths: from 20 to 35 mm
Diameters : from 7 to 11 mm

Performance





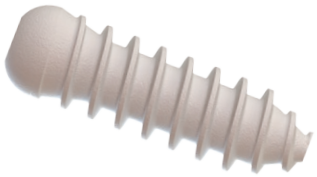
[1] AUNOBLE S., CLEMENT D., FRAYSSINET P., HARMAND M-F., LE HUEC J-C.: «Biological performance of a new β-TCP/PLLA composite material for applications in spine surgery : In vitro and in vivo studies», Journal of Biomedical Materials Research, Part A, Art. 30749, 1-7, 2006

Anterior Cruciate Ligament reconstruction

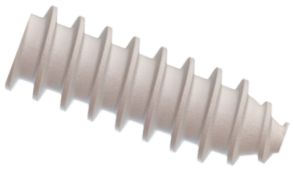
LIGAFIX® interference screws

LIGAFIX® are bioabsorbable interference screws designed for tibial and femoral fixation in ligament reconstructions. Made of Duosorb® material (β-TCP & PDLLA), LIGAFIX® implants are osteoconductive and prevent inflammatory reactions[18]: LIGAFIX® 30 (30% β-TCP) is preferred for Bone-Tendon-Bone grafts while LIGAFIX® 60 (unique 60% β-TCP) is optimized for hamstring grafts. LIGAFIX® screws are available in various diameters, lengths, composition and design, providing you with the right implant for your surgical technique. [6, 12]

LIGAFIX® 30



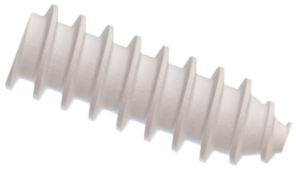
The diameter of the tunnel drilling has to be adapted to the screw's diameter and to the technique:
BTB: ø of the screw inferior of 1 mm to ø of the drill.
Hamstrings: ø of the screw equal to ø of the drill.



LIGAFIX® 60



Only for hamstring grafts.
The diameter of the screw has to be at the minimum equal to the drill's diameter.



Round head LIGAFIX 30

ø 7 mm, L 20 mm - COM3007020
ø 7 mm, L 25 mm - COM3007025
ø 7 mm, L 30 mm - COM3007030
ø 8 mm, L 20 mm - COM3008020
ø 8 mm, L 25 mm - COM3008025
ø 8 mm, L 30 mm - COM3008030
ø 8 mm, L 35 mm - COM3008035
ø 9 mm, L 20 mm - COM3009020
ø 9 mm, L 25 mm - COM3009025
ø 9 mm, L 30 mm - COM3009030
ø 9 mm, L 35 mm - COM3009035
ø 10 mm, L 25 mm - COM3010R25
ø 10 mm, L 30 mm - COM3010R30
ø 10 mm, L 33 mm - COM3010R33
ø 10 mm, L 35 mm - COM3010R35

Flat head LIGAFIX 30 (only for tibia)

ø 10 mm, L 30 mm - COM3010030
ø 10 mm, L 35 mm - COM3010035
ø 11 mm, L 30 mm - COM3011030
ø 11 mm, L 35 mm - COM3011035

Round head LIGAFIX 60

ø 7 mm, L 20 mm - COM6007020
ø 7 mm, L 25 mm - COM6007025
ø 7 mm, L 30 mm - COM6007030
ø 8 mm, L 20 mm - COM6008020
ø 8 mm, L 25 mm - COM6008025
ø 8 mm, L 30 mm - COM6008030
ø 8 mm, L 35 mm - COM6008035
ø 9 mm, L 20 mm - COM6009020
ø 9 mm, L 25 mm - COM6009025
ø 9 mm, L 30 mm - COM6009030
ø 9 mm, L 35 mm - COM6009035
ø 10 mm, L 25 mm - COM6010R25
ø 10 mm, L 30 mm - COM6010R30
ø 10 mm, L 33 mm - COM6010R33
ø 10 mm, L 35 mm - COM6010R35

Flat head LIGAFIX 60 (only for tibia)

ø 10 mm, L 30 mm - COM6010030
ø 10 mm, L 35 mm - COM6010035
ø 11 mm, L 30 mm - COM6011030
ø 11 mm, L 35 mm - COM6011035

LIGAFIX® instruments



Guide pin introducer for guide pin ø 0.9 mm

LIG9000092

Rigid guide pin L 400 mm:

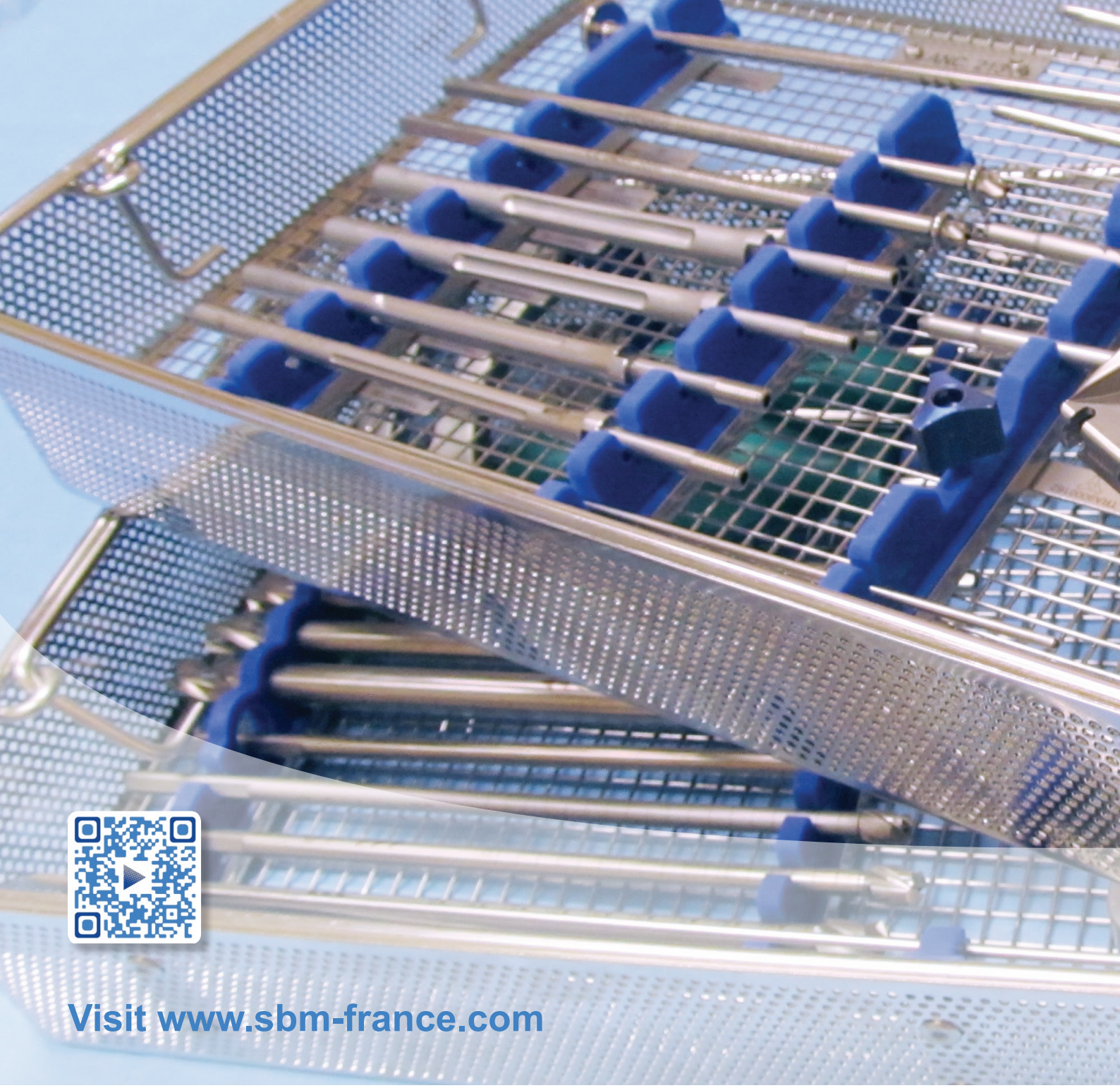
ø 0.9 mm for ø 7, 8 mm screwdriver (x 2) - LIG9109400
ø 1.4 mm for ø 9, 10, 11 mm screwdriver (x 2) - LIG9114400

Tap screwdriver:

White for ø 7 mm screws - LIG9000169
Black for ø 8, 9, 10, 11 mm screws - LIG9000093

Screwdriver:

Green for ø 7, 8 mm screws - LIG9008046
Blue for ø 9, 10, 11 mm screws - LIG9009017



Visit www.sbm-france.com

SBM (Science for BioMaterials) has been specialized in the design, manufacturing and distribution of biomaterials for bone surgery since 1991. The company's priority is the development and optimization of medical devices in favor of bone healing and human tissue replacement.

By completely controlling its technique in biomaterials, the company elaborates a range of innovative, 100% synthetic and absorbable systems along with specific ancillary instrumentation. Firmly established on the French domestic market, SBM has expanded its activities abroad in more than 40 countries for the sales and development of new products, in order to better meet the demands of the medical industry worldwide.

SBM
Science & Bio Materials

CE 0459 G MED ISO 13485

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