chronOS™ Wedges for osteotomies



chronOS™ Wedges for osteotomies (tibia),

semi-circular, double sterile packed, 70% porosity

Item no.	Angle	Dimension
710.057S	7°	25 x 35mr
710.060S	10°	25 x 35mr
710.0635	13°	25 x 35mr
/10.0635	13°	25 x 35r



chronOS™ Wedges for osteotomies (hand, foot),

double sterile packed, 70% porosity

Item no.	Angle	Dimensions
710.050S	10°	25 x 20mm
710.051S	14°	25 x 20mm
710.052S	18°	25 x 20mm
710.053S	22°	25 x 20mm
710.054S	26°	25 x 20mm

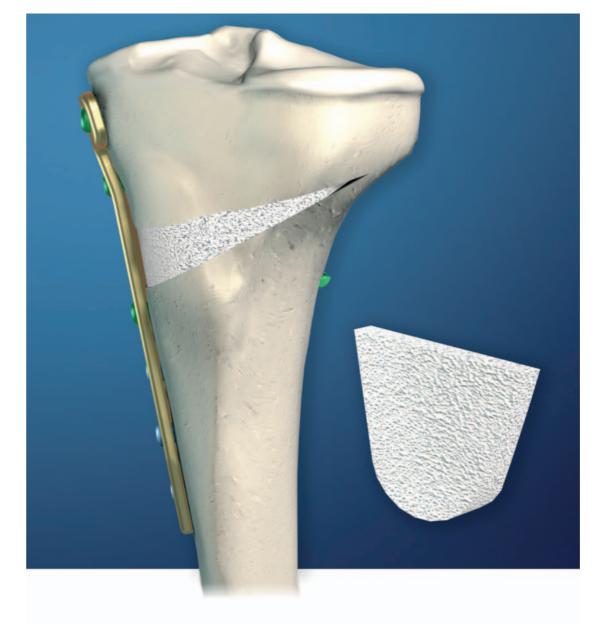


TomoFix[™] Plates

Item no.	Description	Shaft holes
440.834	TomoFix™ medial high tibia	4
440.843	TomoFix™ lateral high tibia, right	3
440.853	TomoFix™ lateral high tibia, left	3
440.864	TomoFix™ lateral distal femur, righ	t 4
440.874	TomoFix [™] lateral distal femur, left	4

chronOS™ Wedges and TomoFix™

Resorbable bone substitute and stable fixation for open-wedge osteotomies





Güterstrasse 5, P.O. Box, CH-2544 Bettlach www.synthes.com

CE 0123



chronOS™ bone substitute

Osteoconductive

- Standardised macroporosity provides an optimal structure for vascularisation
- Interconnecting pores allow rapid bone ingrowth down to the core of chronOS™

Remodelling

- Highly pure B-tricalcium phosphate, a large specific surface and a microporous structure facilitate bone remodelling
- Full resorption of chronOS™ and restoration of vital bone within 6-18 months

100% synthetic

- Avoids risk of allogenic or xenogenic disease transmission
- No bone graft harvesting necessary
- Reproducible and reliable biomechanical properties

chronOS™ and TomoFix™ Synthetic bone substitute and stable fixation

Case example



6 weeks



months



3 months



12 months

Fig. 2: Complete remodelling of a chronOS™ Wedge within 12 months after HTO and fixation with TomoFix™ Thirty-year-old male (A. Wymenga MD, Nijmegen, Netherlands)

Product features

chronOS™ for osteotomies

Open-wedge osteotomies require a stable internal fixation and an osteoconductive scaffold to bridge the resulting void. Anatomically shaped, semi-circular chronOS $^{\text{\tiny{M}}}$ Wedges promote bone ingrowth, improve osseous healing and initiate the formation of a solid cortical bridge.

Remodelling

The structure and composition of chronOS™ promote complete remodelling into new bone through the normal osteoclast-osteoblast cycle (Fig. 1).

This process takes from 6 to 18 months (Fig. 2).

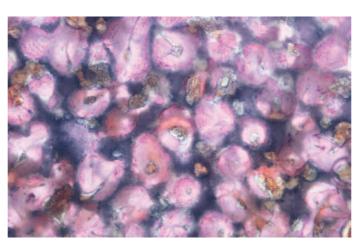


Fig. 1: Histology of bone formation in the presence of chronOS™ (Prof. Olah, Berne, Switzerland)

Workable

chronOS™ Wedges can be shaped using a scalpel, an oscillating saw, a Lindenmann reamer or a chisel.

Reliable

The compressive strength of chronOS™ corresponds to that of human cancellous bone. In comparison with bovine bone substitutes, the biomechanical properties of chronOS™ are more consistent (Fig. 3).

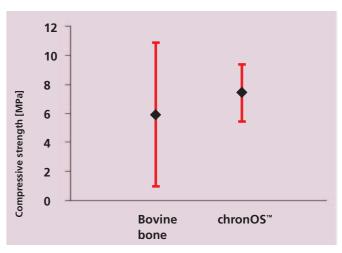


Fig. 3: Comparing the compressive strength of chronOS™ (own data) with that of a bovine bone substitute [Hing et al.: «Characterization of porous hydroxyapatite»; J Mater Sci Mater Med, 10 (1999)]

TomoFix™ for absolute stability

TomoFix[™] is a fixation system for high tibial and lateral distal femur osteotomies.

Stable

The axially and angular stable plate-screw connection of TomoFix™ maintains the correction until the bone has healed.

Flexible and tissue-conserving

In addition to axial and angular stability, the innovative LCP technology permits optimal fine tuning of the correction, and the compression of a possible fracture of the opposite cortex. It preserves the relevant structures between the plate and the bone.