

SURGIPLASTER

SINUS - G170 - P30

Synthetic biomaterial used in dental and maxillofacial surgery **for filling** natural or pathological bone cavities, based on calcium sulfate.

Calcium Sulfate
Completely resorbable within 3 months



G Ghimas
D E N T A L

SURGIPLASTER

Completely resorbable within **3 months**



Medical Device CLASS III CE0426. ISO9001, ISO13485 certified.

3 different
particle sizes



SURGIPLASTER SINUS

Particle size: 1 - 2 mm

1 syringe with dispenser
Cod. prodotto: PFSU0010



SURGIPLASTER G170

Particle size: 0,50 - 1,0 mm

1 bottle of 2 g powder
1 vial with 400 mg Calcium sulfate hemihydrate powder
1 vial with 1 ml Regular liquid
1 vial with 1 ml Fast liquid
Cod. prodotto: PFSU0020



SURGIPLASTER P30

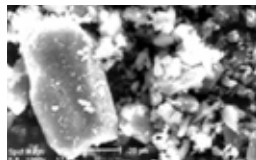
Particle size: 0,25 - 0,5 mm

1 bottle of 2 g powder
1 vial with 400 mg Calcium sulfate hemihydrate powder
1 vial with 1 ml Regular liquid
1 vial with 1 ml Fast liquid
Cod. prodotto: PFSU0030

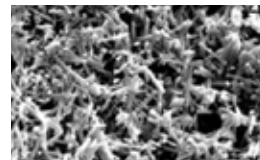


Granulated
compacted
calcium
sulfate

SURGIPLASTER is derived from calcium sulfate hemihydrate and calcium sulfate dihydrate.



Calcium sulfate hemihydrate $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$

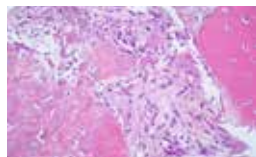


Calcium sulfate dihydrate $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$

Compacted granules without sharp edges.

- Improved biofunctionality of osteogenic cells.
- Increased cohesion of the mixture.
- Optimization of resorption times.

Histological results after Surgiplaster application at 4 months.



Cellular colonization and bone transformation of biomaterial 400x



Bone maturation 100x

Which Surgiplaster to choose?

SURGIPLASTER SINUS is recommended as a **filler**.

SURGIPLASTER G170 is recommended for **lesions > 5 mm**.

SURGIPLASTER P30 is recommended for **small defects**.

The particle size of SURGIPLASTER SINUS allows for better and faster stabilization of the clot, ensuring complete bone regeneration even in large bone deficits.



SURGIPLASTER + FISIOGRAFT GEL

Surgiplaster mixed with FISIOGRAFT SLURRY GEL or with saline solution **increases malleability**.

Applications



Maxillary sinus lift
SURGIPLASTER SINUS



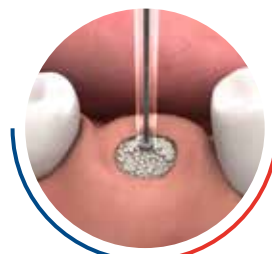
Volume maintenance
SURGIPLASTER P30
SURGIPLASTER G170



Periodontal surgery
SURGIPLASTER P30



Split crest
SURGIPLASTER G170



Post-extraction
SURGIPLASTER P30
SURGIPLASTER G170

ADVANTAGES of SURGIPLASTER

- ✓ Highly **BIOCOMPATIBLE** and **BIOTOLERANT**, completely resorbed within 3 months
- ✓ **OSTEOCONDUCTIVE**
- ✓ **FREE FROM CROSS-CONTAMINATION RISKS**: BSE – HIV – HBV – SARS
- ✓ **DOES NOT INDUCE REJECTION OR INFLAMMATION**
- ✓ Easily **MOLDABLE** when mixed with FISIOGRAFT SLURRY GEL or saline solution
- ✓ **BACTERIOSTATIC**: can be used as an alternative or in conjunction with membranes through a sealing process with fast liquid (included in the package)

SURGIPLASTER: OVER 50 PUBLICATIONS

BIBLIOGRAPHY

- 1 - Bone Regeneration: Properties and Clinical Applications of Biphasic Calcium Sulfate Amos Yahav , Gregori M Kurtzman , Michael Katzap , Damian Dudek , David Baranes, Dent Clin North Am . 2020 Apr; 64(2): 453-472.
- 2 - A Human Clinical and Histomorphometrical Study on Different Resorbable and Non-Resorbable Bone Substitutes Used in Post-Extractive Sites. Preliminary Results. Ilaria De Tullio et al. A Materials 2019, 12, 2408.
- 3 - Osteoinduction and conduction through absorbable bone substitute materials based on calcium sulfate: in vivo biological behavior in a rabbit model. Pfföringer D, Harrasser N, Mühlhofer H, Kioekki M, Stemberger A, van Griensven M, Lucke M, Burgkart R, Obermeier A. J Mater Sci Mater Med. 2018 Jan 9;29(2):17.
- 4 - Influence of Absorbable Calcium Sulfate-Based Bone Substitute Materials on Human Haemostasis—In Vitro Biological Behavior of Antibiotic Loaded Implants. Dominik Pfföringer, Norbert Harrasser, Marc Beirer, Moritz Crönlein, Axel Stemberger, Martijn van Griensven, Martin Lucke, Rainer Burgkart, and Andreas Obermeier. Materials (Basel). 2018 Jun; 11(6): 935. Published online 2018 Jun 1.
- 5 - Calcium-containing scaffolds induce bone regeneration by regulating mesenchymal stem cell differentiation and migration. Stem Cell Research & Therapy volume 8, Article number: 265 (2017).
- 6 - The role of orthobiologics in foot and ankle surgery Allogenic bone grafts and bone graft substitutes James Wee Gowreeson Thevendran Foot & Ankle Open Access Open Access license.
- 7 - Bone grafts and their substitutes. Y Fillingham, J Jacobs. Bone Joint J. 2016 Jan;98-B(1 Suppl A):6-9.
- 8 - Adjuvant treatment of chronic osteomyelitis of the tibia following exogenous trauma using OSTEOSET -T: a review of 21 patients in a regional trauma centre G. Humm, S. Noor, P. Bridgeman, M. David, and D. Bose Strategies Trauma Limb Reconstr. 2014 Nov; 9(3): 157–161.
- 9 - The use of a biodegradable antibiotic-loaded calcium sulphate carrier containing tobramycin for the treatment of chronic osteomyelitis. J. Y. Ferguson, M. Dudareva, N. D. Riley, D. Stubbs, B. L. Atkins, M. A. McNally Bone Joint J 2014; 96-B:829–36.
- 10 - Tobramycin exposure from active calcium sulfate bone graft substitute. F. Livio, P. Wahl, C. Csajka, E. Gautier and T. Buclin Livio et al. BMC Pharmacology and Toxicology 2014, 15:12.
- 11 - The use of bone graft substitutes in large cancellous voids: Any specific needs? G.M. Calori, E. Mazza, M. Colombo, C. Ripamonti. Injury, Int. J. Care Injured 42 (2011) S56–S63.
- 12 - The use of bone graft substitutes in large cancellous voids: any specific needs? Omar Faour 1, Rozalia Dimitriou, Charlotte A Cousins, Peter V Giannoudis Affiliations expand 2011 Sep;42 Suppl 2:S87-90.
- 13 - Calcium sulfates: what is the evidence? Beuerlein MJ, McKee MD. J Orthop Trauma. 2010 Mar;24 Suppl 1:S46-51.
- 14 - Systemic exposure to tobramycin after local antibiotic treatment with calcium sulphate as carrier material. P. Wahl • F. Livio • M. Jacobi • E. Gautier • T. Buclin Arch Orthop Trauma Surg (2011) 131:657–662.
- 15 - Calcium Sulfate: Properties and Clinical Applications. Review. Thomas MV, Puleo DA. J Biomed Mater Res Part B: Appl Biomater 2009; 88B: 597-610.
- 16 - Alveolar bone dimensional changes of post-extraction sockets in humans: a systematic review. Van der Weijden F, Dell'Acqua F, Slot DE. J Clin Periodontol 2009; 36: 1048-1058.
- 17 - Back-scattered electron imaging and elemental microanalysis of retrieved bone tissue following maxillary sinus floor augmentation with calcium sulphate. Slater N, Dasmah A, Sennerby L, Hallman M, Piattelli A Sammons R. Clin. Oral Impl. Res. 2008; 19: 814-22.
- 18 - Peri-Implant Bone Regeneration With Calcium Sulfate: A Light and Transmission Electron Microscopy Case Report. Scarano A, Orsini G, Pecora G, Iezzi G, Perrotti V, Piattelli A. Implant Dent. 2007; 16 (2): 195-203.
- 19 - Local Antibiotic Delivery with OsteoSet, DBX, and Collagraft A. Heijink, MD; M. J. Yaszemski, MD, PhD; R. Patel, MD; M. S. Rouse; D. G. Lewallen, MD; and A. D. Hanssen, MD Clinical Orthopaedics And Related Research Number 451, pp. 29–33 © 2006 Lippincott Williams & Wilkins.
- 20 - Effectiveness of Local Antibiotic Delivery with an Osteoinductive and Osteoconductive Bone-Graft Substitute A. A. Beardmore, Md, D. E. Brooks, Bs, J. C. Wenke, PhD, And D. B. Thomas, Md The Journal Of Bone & Joint Surgery · Jbjs.Org Volume 87-A · Number 1 · January 2005.
- 21 - Maxillary sinus augmentation with different biomaterials: a comparative histologic and histomorphometric study in man. Scarano A, Degidi M, Iezzi G, Pecora G, Piattelli M, Orsini G, Caputi S, Perrotti V, Mangano C, Piattelli A. Implant Dent. 2006; 15 (2): 197-207.
- 22 - Maxillary sinus augmentation using granular calcium sulfate (SurgiPlaster Sinus): radiographic and histologic study at 2 years. Guarnieri R, Grassi R, Ripari M, Pecora G. Int J Periodontics Restorative Dent. 2006; 26: 79-85.
- 23 - Medical grade calcium sulfate hemihydrate in healing of human extraction sockets: clinical and histological observations at 3 months. Guarnieri R, Pecora G, Fini M, Aldini NN, Giardino R, Orsini G, Piattelli A. J Periodontol. 2004; 75 (6): 902-8.

