

Competitor Fact Sheet: OsteoCrete®



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Feature	genex®	OsteoCrete® Bone Solutions Inc.
Composition	Powder: 50% β -tricalcium phosphate, 50% CaSO_4 hemihydrate Mixing solution: Sterile water ¹	Powder: Magnesium oxide, monopotassium phosphate, monosodium phosphate, β -tricalcium phosphate Mixing solution: Buffered saline ^{1,4,5}
Scaffold type	Osteoconductive with negative surface charge for accelerated bone restoration ²	Osteoconductive ⁵
Available sizes	5cc, 10cc	5cc, 10cc, 15cc ^{4,5}
Setting time	15 minutes ¹	10-12 minutes ⁶
Temperature sensitive setting	No ¹	Yes ^{5,7}
Drillable when fully set	Yes ¹	Not marketed for this purpose
Versatility	Moldable, packable, injectable ¹	Moldable, injectable ^{4,5}
Injection flexibility	<ul style="list-style-type: none"> Luer Lock syringe with narrow plastic cannula included for hard-to-reach defects OsteoPrecision™ Graft Delivery Device available to withstand insertion pressure 	<ul style="list-style-type: none"> No syringe or cannula available in basic kit Mixing & delivery syringe and cannula included in full kit only Optional mixing & delivery system, mechanical advantage pack, cannula pack and bead mat available for order⁴
Impurities	No ¹	Unknown
Claimed absorption rate	Up to 12 months ³	Not specified

Feature	genex®	OsteoCrete® Bone Solutions Inc.
Fully absorbs	Yes ¹	Unknown
Dry compressive strength	15MPa ¹	62MPa ¹
Radiopaque	Yes ¹	Yes ^{4,5}
Key selling points and weaknesses	<ul style="list-style-type: none"> (+) Precisely balanced β-tricalcium phosphate/calcium sulfate hemihydrate¹ (+) Contains no insoluble impurities¹ (+) Fully absorbed within 12 months³ (+) Indicated to fill bone voids in long bones, extremities, spine and pelvis¹ (+) Not temperature sensitive¹ (+) Provides options for injection flexibility (+) Drillable when fully set¹ (+) Radiopaque¹ (+) Negatively charged surface chemistry accelerates bone growth up to 5x normal levels² (+) Restores bone to normal trabecular structure in 36 weeks³ (+) Comprehensive support network for our customers and hospitals 	<ul style="list-style-type: none"> (+) Also sold as wishBone Mg (WishBone Medical) & GenVie™ Magnesium Bone Scaffold (Onkos Surgical®) (+) Contains magnesium, which is reported to contribute to the structural development of bone^{4,5} (+) Radiopaque⁴ (+) Optional bead mat available for order⁴ (-) Warning against use in infected sites⁷ (-) Not cleared for use in spine⁷ (-) Not intended to treat large defects that would fail to heal spontaneously⁷ (-) Temperature sensitive^{5,7} (-) Components should be equilibrated to room temperature prior to mixing⁷ (-) Increased ambient temperature of O.R. will accelerate setting time^{5,7} (-) Exothermic reaction during setting¹ (-) Material expands during setting phase by 0.15-0.2%⁸ <p>* (+) = competitor selling points (-) = competitor weaknesses</p>

References:

1. Biocomposites, Data on file.
2. Cooper, J.J., J.A. Hunt, and F. Pu, Enhancing the Osteogenic Potential of Bioabsorbable Implants through Control of Surface Charge. Presented at the Society for Biomaterials 2007 Annual Meeting. 2007: Chicago, Illinois, USA.
3. Yang HL et al. Bone healing response to a synthetic calcium sulfate/beta-tricalcium phosphate graft material in a sheep vertebral body defect model. J Biomed Mater Res B Appl Biomater 2012;100B(7):1911-21.
4. <https://bonesolutions.net/>
5. WishBone Medical, Inc. wishBONE Mg Magnesium-Based Bone Void Filler Mixing Instructions. LBL-ST-BVF REV A. 2020.
6. <https://www.slideshare.net/dentistryinfo/bsi-osteocrete-powerpoint-overview-mar-2008-ppt>
7. WishBone Medical, Inc. wishBONE Mg Magnesium-Based BVF Instructions for Use. IFU-BVF-1 Rev. A.
8. Sehlke BM, Wilson TG, Jones AA, Yamashita M, Cochran DL. The use of a magnesium-based bone cement to secure immediate dental implants. The International Journal of Oral & axillofacial Implants 2013;28:e357-e367.

For indications, contraindications, warnings and precautions see Instructions for Use.

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