Competitor Fact Sheet: HydroSet® & HydroSet® XT

Biocomposites

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Feature	genex®	HydroSet® & HydroSet® XT Stryker®
Composition	Powder: 50% β-tricalcium phosphate, 50% $CaSO_4$ hemihydrate Mixing solution: Sterile water[1]	Powder: Dicalcium phosphate dihydrate, Tetracalcium phosphate, Tri-sodium citrate Mixing solution: Sodium phosphate, Polyvinylpyrrolidone, water[4]
Scaffold type	Osteoconductive with negative surface charge for accelerated bone restoration[2]	Osteoconductive[4,5,6]
Available sizes	5cc, 10cc	3cc, 5cc, 10cc, 15cc[6,7]
Setting time	15 minutes[1]	Within 8 minutes when mixed according to manufacturer's instructions[7]
Temperature sensitive setting	No[1]	Yes[4,5,6]
Drillable when fully set	Yes[1]	Yes[4,5]
Versatility	Moldable, packable, injectable[1]	Moldable, injectable[6]
Injection flexibility	• Luer Lock syringe with narrow plastic cannula included for hard-to-reach defects • OsteoPrecision™ Graft Delivery Device available to withstand insertion pressure	• Hydroset: Standard delivery syringe with cannula included[4] • Hydroset XT: Pre-filled, self-contained mixing and delivery system with locking torque handle and cannula[7,8]
Impurities	No[1]	Unknown

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Claimed absorption rate	Up to 12 months[3]	Not specified. Expected to be >6 months[1]
Fully absorbs	Yes[1]	No[1]
Dry compressive strength	15 MPa[1]	15.9MPa[9]
Radiopaque	Yes[1]	Yes[6,9]
Key selling points and weaknesses	(+) Precisely balanced β-tricalcium phosphate/calcium sulfate hemihydrate[1] (+) Contains no HA or insoluble impurities[1] (+) Fully absorbed within 12 months[3] (+) No contraindication against use in articulating surfaces[1] (+) Not temperature sensitive[1] (+) Provides options for injection flexibility (+) Drillable when fully set[1] (+) Radiopaque[1] (+) Negatively charged surface chemistry accelerates bone growth up to 5x normal levels[2] (+) Restores bone to normal trabecular structure in 36 weeks[3] (+) Comprehensive support network for our customers and hospitals	(+) Hydroset XT features a self-contained delivery system for increased working time[8] (+) Drillable[4,7] (+) Hardens in a wet environment[4,6] (+) Radiopaque[6] (-) Calcium phosphate converts to Hydroxyapatite (HA) after implantation[4,7] (-) HA has a slow and incomplete absorption rate[1] (-) HA can cause a long-term nidus for infection[1] (-) Contraindicated for infected sites[5] (-) Contraindicated for bone voids that link joint spaces and articulating surfaces[5] (-) Temperature sensitive[4] (-) Contact and heat transfer between hands and syringe may decrease injection time[4,6] (-) Setting time shown to extend up to 19 minutes[10]

* (+) = competitor selling points
(-) = competitor weaknesses

References:

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10. Niall Kent et al. In vitro and in vivo study of commercial calcium phosphate cement HydroSet™. 2016 Wiley Periodicals, Inc. J Biomed Mater Res Part B: Appl Biomater, 106(B):21-30, 2018.

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

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