

# Biologics product catalog



### Introduction

The NuVasive Biologics portfolio is a comprehensive suite of biologic offerings, consisting of procedurally integrated solutions to meet surgeons' needs. NuVasive offers a variety of biologic products, which include the following: Osteocel, the most studied cellular allograft in the market; Attrax Putty, the first and only ceramic supported by Level 1 evidence as a bone graft substitute in posterolateral spine fusions<sup>1</sup> and Attrax Scaffold; Propel Demineralized Bone Matrix (DBM), available in Putty, Gel, Plus versions with added cancellous chips, Fibers, and Sponges; FormaGraft, a highly absorbent, compression-resistant collagen bone graft matrix; traditional bone allograft such as cancellous chips; and Amniotic Membrane DS, a dual-layer surgical barrier.

With our comprehensive Biologics portfolio, NuVasive is your trusted partner for biologic solutions.

### Osteocel

#### **Features**

- Osteogenic,<sup>2</sup> osteoconductive<sup>3</sup> and osteoinductive<sup>4</sup>
- The most studied cellular allograft in the market with 30+ peer-reviewed articles and abstracts that support its use
- Simplified preparation and cohesive handling with Osteocel Pro

Allograft cellular bone matrix	
Catalog no.	Description
5016001	Osteocel Pro, small (1 cc)
5016005	Osteocel Pro, medium (5 cc)
5016010	Osteocel Pro, large (10 cc)
5013001	Osteocel Plus (1 cc)
5013005	Osteocel Plus (5 cc)
5013010	Osteocel Plus (10 cc)
5013015	Osteocel Plus (15 cc)



Osteocel Pro



Osteocel Plus

### Attrax | Backed by Level I data

Attrax Putty is now the first and only ceramic supported by Level I evidence as a bone graft substitute.\*

#### **Features**

- Optimized microarchitecture designed to drive increased bone formation<sup>5</sup>
- Randomized controlled trial shows Attrax Putty alone successfully demonstrates non-inferior fusion performance compared to autograft in PLF<sup>1</sup>
- Alkylene oxide copolymer (AOC) carrier makes Attrax Putty cohesive and highly moldable
- Entangled collagen matrix allows Attrax Scaffold to readily absorb fluids

#### Ceramic

Catalog no.	Description
5015001	Attrax Putty cylinder (1 cc)
5015002	Attrax Putty cylinder (2 cc)
5015005	Attrax Putty strip (5 cc)
5015006	Attrax Putty block (6 cc)
5015010	Attrax Putty strip (10 cc)
Ceramic with co	llagen
Catalog no.	Description
5015101	Attrax Scaffold strip-quantity 2 (15 cc)
5015102	Attrax Scaffold strip-quantity 2 (30 cc)
5015103	Attrax Scaffold block (2 cc)
5015104	Attrax Scaffold block (6 cc)
5015106	Attrax Scaffold block (10 cc)
5015110	Attrax Scaffold morsels (10 cc)
5015120	Attrax Scaffold morsels (20 cc)
5105130	Attrax Scaffold morsels (30 cc)



Attrax Putty cylinder







Attrax Putty block



Attrax Scaffold strip



Attrax Scaffold block



Attrax Scaffold morsels

## Propel DBM Putty and Gel

#### Features

- Provides a scaffold and signals<sup>4</sup> to support new bone growth
- Reverse phase medium (RPM) carrier firms up at body temperature
- Propel DBM Gel Plus and Putty Plus contain added cancellous chips

#### **Demineralized bone matrix**

Catalog no.	Description
5020001	Propel DBM Putty (1 cc)
5020005	Propel DBM Putty (5 cc)
5020010	Propel DBM Putty (10 cc)
5020205	Propel DBM Putty Plus (5 cc)
5020210	Propel DBM Putty Plus (10 cc)
5020301	Propel DBM Gel (1 cc)
5020305	Propel DBM Gel (5 cc)
5020310	Propel DBM Gel (10 cc)
5020401	Propel DBM Gel Plus (1 cc)
5020403	Propel DBM Gel Plus (3 cc)
5020408	Propel DBM Gel Plus (8 cc)



Propel DBM Putty



Propel DBM Gel

### Propel DBM Fibers

#### **Features**

- 100% bone without a carrier
- Prehydrated and ready to use
- Available in procedurally appropriate shapes and sizes

Demineralized bone matrix fibers	
Catalog no.	Description
5022101	Propel DBM Fibers (1 cc)
5022105	Propel DBM Fibers (5 cc)
5022110	Propel DBM Fibers (10 cc)
5022112	Propel DBM Fibers, small boat 50x25 mm (5 cc)
5022113	Propel DBM Fibers, large boat 100x25 mm (10 cc)



Propel DBM Fibers



Propel DBM Fiber boats

## Propel DBM Sponge

#### Features

- Becomes flexible and compressible upon hydration
- Monolithic-engineered as a single piece of bone for handling and ease of use
- Naturally absorbs and retains hydrating agents

### Demineralized bone matrix sponge

Description
Propel DBM Sponge strip, small 10x20x3 mm
Propel DBM Sponge strip, medium 15x40x3 mm
Propel DBM Sponge strip, large single pack 20x50x3 mm
Propel DBM Sponge strip, large 2-pack 20x50x3 mm
Propel DBM Sponge cube, 8 mm
Propel DBM Sponge cube, 10 mm
Propel DBM Sponge cube, 12 mm
Propel DBM Sponge cube, 14 mm



Propel DBM Sponge strip



Propel DBM Sponge cube

### Formagraft

#### **Features**

- Balanced ratio of HAp to  $\beta\text{-TCP}$  for a controlled degradation rate
- Highly absorbent, compression-resistant matrix

#### Collagen bone graft matrix

Catalog no.	Description
5010085	Formagraft XL block, small (4 cc)
5010125	Formagraft XL block, large (6 cc)
5010205	Formagraft strip, small (3 cc)
5010200	Formagraft strip, large (6 cc)
5010005	Formagraft granules (5 cc)
5010010	Formagraft granules (10 cc)
5010020	Formagraft granules (20 cc)



Formagraft XL blocks



Formagraft strips



Formagraft granules

## Traditional bone allograft

### Features

- Provides a scaffold for bone growth
- Available in a variety of graft options

Cancellous ch	ips	
Catalog no.	Description	
12511015	Demineralized cancellous chips, 1–9.5 mm, freeze dried (15 cc)	
12511030	Demineralized cancellous chips, 1–9.5mm, freeze dried (30 cc)	
27615005	Cancellous chips, 4–9.5 mm, freeze dried (5 cc)	
27615015	Cancellous chips, 4–9.5 mm, freeze dried (15 cc)	
27615030	Cancellous chips, 4–9.5 mm, freeze dried (30 cc)	- Net
27615060	Cancellous chips, 4–9.5 mm, freeze dried (60 cc)	- Cancellous chips
27615090	Cancellous chips, 4–9.5 mm, freeze dried (90 cc)	-
27617015	Cancellous chips, 4–9.5 mm, frozen (15 cc)	_
27617030	Cancellous chips, 4–9.5 mm, frozen (30 cc)	_
Cancellous cru	ıshed	
Catalog no.	Description	
27715005	Cancellous crushed, 1–4 mm, freeze dried (5 cc)	
27715015	Cancellous crushed, 1–4 mm, freeze dried (15 cc)	
27715030	Cancellous crushed, 1–4 mm, freeze dried (30 cc)	a cranter
27715060	Cancellous crushed, 1–4 mm, freeze dried (60 cc)	
27715090	Cancellous crushed, 1–4 mm, freeze dried (90 cc)	Canadilaus anushad
27717005	Cancellous crushed, 1–4 mm, frozen (5 cc)	- Cancenous crushed
27717015	Cancellous crushed, 1–4 mm, frozen (15 cc)	-
27717030	Cancellous crushed, 1–4 mm, frozen (30 cc)	
Cortical cance	llous chips	
Catalog no.	Description	and the second
11515015	Cortical cancellous chips, 1–9.5 mm, freeze dried (15 cc)	
11515030	Cortical cancellous chips, 1–9.5 mm, freeze dried (30 cc)	S.A.S.
11517015	Cortical cancellous chips, 1–9.5 mm, frozen (15 cc)	Continuing
11517030	Cortical cancellous chips, 1–9.5 mm, frozen (30 cc)	- Cortical cancellous chi

### Amniotic Membrane DS

#### **Features**

- Natural surgical barrier that stays through critical healing
- Unique, 2-layer design improves handling characteristics
- Packaged wet—no hydration required

#### Amniotic Membrane

Catalog no.	Description
5025022	Amniotic Membrane DS, 2x2 cm
5025024	Amniotic Membrane DS, 2x4 cm
5025044	Amniotic Membrane DS, 4x4 cm
5025048	Amniotic Membrane DS, 4x8 cm



# Bone Graft Delivery instrumentation and accessories

#### **Features**

- Graft Delivery System (GDS) can deliver up to 2.5 times quicker than traditional funnel delivery<sup>6</sup>
- GDS designed to provide accurate and predictable delivery of graft material
- Bone marrow aspiration (BMA) needles are ergonomic in design and available in multiple lengths

#### Bone Graft Delivery PLIF/TLIF/PLF

Catalog no.	Description
5120000	MAS Graft Delivery System
BMA needles	
Catalog no.	Description
5010001	6-port BMA needle, 11 G, 4"
5010008	6-port BMA needle, 11 G, 8"



#### References

- 1. Lehr MA, Oner CF, Delawi D, et al. Efficacy of a Standalone Microporous Ceramic vs. Autograft in Instrumented Posterolateral Spinal Fusion; a Multicenter, Randomized, Intra-patient Controlled, Non-inferiority Trial. *Spine* 2020; published ahead of print.
- 2. Cellular Viability and Osteogenic Potential of Osteocel® Plus after Cryopreservation. NuVasive White Paper 9500331 A. February 2009.
- 3. Kerr EJ, Jawahar A, Wooten T, et al. The use of osteo-conductive stem-cells allograft in lumbar interbody fusion procedures: an alternative to recombinant human bone morphogenetic protein. J Surg Orthop Adv 2011;20(3):193-7.
- 4. Urist MR. Bone: formation by autoinduction. Science 1985. Nov 12; 150(3698):893-9.
- 5. Yuan H, Fernandes H, Habibovic P, et al. Osteoinductive ceramics as a synthetic alternative to autologous bone grafting. *PNAS* 2010;107(31):13614-9.
- 6. Data on file: TR96002762

\*Based on review of publicly available materials at the time of this release (4/1/2020).

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