DEPUY SYNTHES CMF
BIOMATERIALS SOLUTIONS
A comprehensive guide to biomaterials offered by DePuy Synthes CMF
**BONE VOID FILLERS**

- **chronOS® Bone Void Filler (BVF), DBX® Putty**
  - Cranioplasty
  - Burr hole

- **CRANIOS REINFORCED BVF**
  - Orbital rim restoration or augmentation

- **chronOS Granules BVF**
  - Sinus lift

- **chronOS BVF, DBX Putty, DBX Paste**
  - Ridge augmentation
  - Socket preservation
  - Filling of defects of endodontic origin and filling of extraction sites

- **DBX Putty, DBX Paste, DBX Mix**
  - Mandibular reconstruction

- **chronOS BVF, DBX Putty, DBX Mix**
  - Genioplasty

- **chronOS BVF**
  - Filling bone resection defects

**POLYMERS AND RESORBABLES**

- **SYNPOR® Porous Polyethylene Implants, RAPIDSORB® Rapid Resorbable Fixation System**

- **RAPIDSORB System**
  - Cranial flap fixation

- **SYNPOR Implants**
  - Cranioplasty

- **SYNPOR Implants, RAPIDSORB System**
  - Sellar floor reconstruction

- **SYNPOR Implants**
  - Skull base augmentation

- **SYNPOR Implants**
  - Mandibular angle
  - Body
  - Ramus augmentation

- **SYNPOR Implants**
  - Malar augmentation

- **SYNPOR Implants**
  - Orbital augmentation

- **SYNPOR Implants**
  - Genioplasty

- **RAPIDSORB System**
  - Mandible graft containment

**CRANIOS REINFORCED® Bone Void Filler (BVF)**
- Cranioplasty
- Cranial flap augmentation
- Burr hole
- Cranial recontouring

**CRANIOS REINFORCED BVF**
- Temporal bone augmentation
- Skull base defect repair

**chronOS BVF, DBX Paste, DBX Putty**
- Craniofacial augmentation

**chronOS BVF, DBX Putty, DBX Paste**
- Filling of lesions of periodontal defects/pathological defects

**RAPIDSORB System**
- Craniosynostosis

**SYNPOR Implants, RAPIDSORB System**
- Craniofacial trauma
- Orbital reconstruction
- Orbital augmentation
- Malar augmentation

**RAPIDSORB System**
- Mandible graft containment
DBX Allograft Bone Void Filler

- Composed of demineralized bone and sodium hyaluronate
- Osteoconductive, osteoinductive potential\(^1\)
- Resorbed and replaced by bone
- Isotonic and nonhemolytic
- Processed by MTF

**DBX Putty**
- Moldable consistency of granulated cortical bone
- Resists displacement and wash-away from irrigation

**DBX Paste**
- Flowable consistency of granulated cortical bone

**DBX Mix**
- Morselized corticocancellous bone texture

CRANIOS REINFORCED Bone Void Filler

- Composed of calcium phosphate, resorbable PLGA fibers, and sodium hyaluronate solution
- Resorbable fibers increase material toughness,\(^2\) and resist cracking during the setting process
- Osteoconductive
- Gradually resorbed and replaced by bone

**CRANIOS REINFORCED Fast Set Putty**
- Moldable putty
- 25 MPa compression strength
- Sets in 3–6 minutes at 37°C

**CRANIOS REINFORCED Rotary Mix**
- Injectable paste
- 35 MPa compression strength
- Sets in 10 minutes at 37°C

chronOS Bone Void Filler

- Composed of β-tricalcium phosphate
- Osteoconductive
- 6–18 month remodel time
- Fully synthetic
- Macropores: <100 µm–500 µm

**chronOS Granules**
- Three size ranges: 0.5 mm–0.7 mm, 0.7 mm–1.4 mm, and 1.4 mm–2.8 mm
- 60% porous

**chronOS Preforms**
- Three forms: blocks, rectangular wedges, and semi-circular wedges
- 70% porous

SYNPOR Porous Polyethylene Implants

- Nonabsorbable, biocompatible material
- Contourable and easily shaped
- Radiolucent
- Interconnected porosity supports tissue ingrowth

**Smooth Option**
- Supports tissue ingrowth on only one side

**Titanium Reinforced Option**
- Increased strength and contour retention
- Optional fixation holes allow for optimal screw placement
- Radiographic visibility
- Porous sheets embedded with 1.3 mm titanium

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\(^1\) It is unknown how the osteoinductive potential, measured in the athymic mouse model or the alkaline phosphatase assay, will correlate with clinical performance in human subjects.

\(^2\) Toughness is defined as a measure of a material’s resistance to fracture when stressed. Data on file with DePuy Synthes Companies of Johnson & Johnson, mechanical test FRN Test 132. Please refer to package inserts for full list of indications, contraindications, warnings, and/or precautions.
RAPIDSORB Rapid Resorbable Fixation System

- Composed of 85:15 poly (L-lactide-co-glycolide)
- Resorbs in 12 months
- Retains approximately 85% of initial bending strength after 8 weeks
- Eliminates need for implant removal

Implants
- Wide selection of 1.5 mm and 2.0 mm plates, meshes, sheets, and screws support a variety of surgical indications
- Contourable mesh permits anatomic conformity without cutting or kinking
- Orbital floor plate, cranial clamps and other specially designed implants are available for specific clinical applications

Instruments
- A full line of instrumentation and trays meet the needs of both surgeons and operating room personnel

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