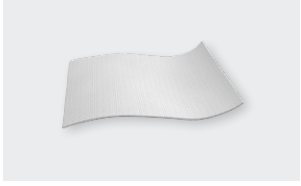


Discover the

Power of OSSIX® Products

for Guided Bone and Tissue Regeneration

Dentsply Sirona | Regenerative Solutions

Remarkable Regenerative Power

OSSIX® products are at the forefront of dental regeneration, offering advanced solutions for guided bone and tissue regeneration and backed by research, case studies and dozens of scientific publications.

The product line includes OSSIX® Plus, OSSIX® Volumax, OSSIX™ Bone and OSSIX Agile™ all of which are manufactured in-house utilizing the GLYMATRIX® technology while maintaining rigorous manufacturing standards.

Why are OSSIX® Products so Unique?

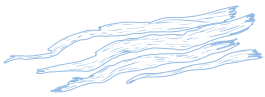
Powered by clinically proven GLYMATRIX® technology, OSSIX® products offer prolonged biodurability and efficacy, providing advanced regenerative solutions[1].

OSSIX® products are based on type-1 collagen[1*] and demonstrate prolonged biodurability properties[1] due to the proprietary GLYMATRIX® technology. This technology mimics the process of cross-linking in the human body[2-3], in which naturally occurring non-toxic sugar is used as a crosslinking agent[2-3].

*OSSIX Agile™ is derived from a different source (porcine pericardium collagen type-1 and -3). In addition, OSSIX Agile™ is cross-linked according to GLYMATRIX® technology, but is processed differently. It does not go through the entire GLYMATRIX® process. Its quality is achieved through a different proven purification process.

Warning: OSSIX® products should not be used in patients with known collagen hypersensitivity, sensitivity to porcine-derived materials, or those who suffer from autoimmune diseases and connective tissue diseases. As the products are of a collagen origin, allergic reactions may not be entirely excluded. Please read IFUs before use for additional information on indications, contraindications, warnings, and precautions.

The GLYMATRIX® process

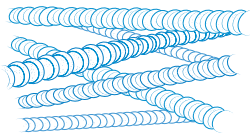


1 **Porcine Tendons Source material**
Porcine tendons - collagen Type I

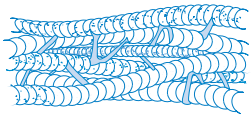
2 **Extraction Collagen**
Molecules extraction from tendons tissue matrix

3 **Pepsinization**
Cleaving the telopeptides: the immunogenetic part of the collagen molecule

4 **Purification**
Removing the cleaved telopeptides



5 **Fibril Formation**
Building a strong network of fibers



6 **Cross-linking**
With sugar for stronger network and longevity

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OSSIX Agile™

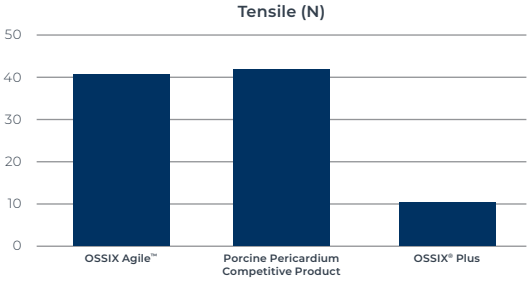
Up to 6 Months Barrier Functionality[4*] with Versatile Handling Characteristics[5]

Discover OSSIX Agile™: Pericardium-Based Membrane

Why Choose OSSIX Agile™?

- **Long-Lasting Barrier Functionality -** Maintains the barrier function for up to 6 months thereby preventing the ingrowth of soft tissue into the area where new bone is forming[4*]
- **Versatile Handling Characteristics -** Accommodating various fixation methods including suturing, tacking and screwing through the membrane[5]
- **Resilient Properties -** The membrane can withstand a significant force before the suture is pulled out[6].

Mechanical Properties - Tensile Strength



Source: Data on file (In Vitro Characterization of OSSIX Agile™; Evaluation of Maximum Load, Suture Pull Test, and Fixability)

The ***high tensile*** strength of 41.4N demonstrates the membrane's ability to withstand stretching and pulling forces without tearing or rupturing. This characteristic is crucial for maintaining the integrity of the membrane during surgical procedures.

Product no. (SKU)	Size
6801 8004	10x12.5 mm
6801 8005	15x20 mm
6801 8006	20x30 mm
6801 8007	40x30 mm

* Animal model results do not necessarily translate to clinical results.

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Clinical Indications

Alveolar ridge augmentation and reconstruction	Over the window in sinus elevation procedures and for support of the Schneiderian membrane	
Alveolar ridge preservation consequent to tooth extractions	Over intrabony defects around teeth	Guided tissue regeneration procedures in periodontal defects

How to use OSSIX Agile™?

- **Trimming** to the required dimensions: it is recommended that OSSIX Agile™ extends 2-3 mm beyond the margins of the defect
- **Hydration:** Can be hydrated before or after trimming in a 0.9% sterile saline solution until it becomes soft and flexible
- **Coverage:** Should be placed over the defect and slightly pressed down to hold it in place
- **Closing:** The mucoperiosteal flaps should be sutured while ensuring that the tissue is not under tension

Tips for Users

- In GTR, the root surface should be carefully debrided and planed
- The membrane can be sutured with resorbable suture material and with a non-cutting needle, or it can be fixed to the bone with tacks or pins or screws

Discover Expert Insights on OSSIX Agile™

A 46-year-old female that smokes, currently undergoing orthodontic treatment, presented with a vertical root fracture in tooth #9. The patient decided on the placement of an immediate implant along with the necessary repair of the bone defect present in the facial socket wall.

Pre-op view of the fractured central incisor

Following extraction of tooth: #9, the immediate implant was placed with a facial dehiscence revealing DS Prime Taper™ implant

OSSIX™ Bone has been positioned to fill the defect and thicken the facial contours

OSSIX Agile™ has been trimmed and positioned over the OSSIX™ Bone. No attempt was made to stabilize the membrane with sutures or tacks

Facial view of the site after 5 months healing. The papilla is filling in and thick facial contours remain stable

Source: Clinical Case Study by Dr. Rodrigo Neiva. Ridge Augmentation with Immediate Implant Placement Using OSSIX Agile™ and OSSIX™ Bone
Dr. Neiva receives financial support from Dentsply Sirona for this case study

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OSSIX™ Bone

+39% New Vital Bone Formation, No Particles Migration[8]

Discover OSSIX™ Bone: Ossifying Collagen Sponge

OSSIX™ Bone is a sponge-like ossifying block for Guided Bone Regeneration (GBR) & Guided Tissue Regeneration (GTR) Procedures

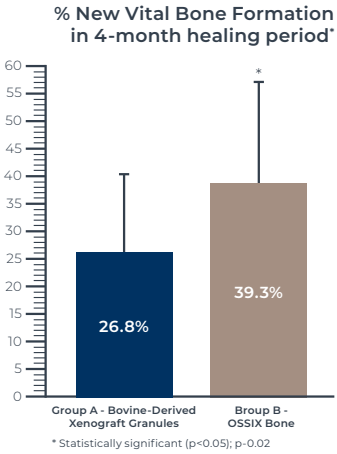
Why Choose OSSIX™ Bone?

- **High New Vital Bone Formation:** A human clinical study revealed +12.5% more new bone formation versus xenograft bone in extraction sites[8]
- **No Product Particle Migration from the Composite Matrix:** Due to the securely embedded 80% hydroxyapatite particles within a sugar-crosslinked 20% collagen matrix[7,9]
- **Its Porous Matrix Promotes Vascularization:** Provides a spacious environment for vascularization, cellular proliferation, and bone maturation[7,10].

Spotlight on Clinical Trial Publication

In a randomized controlled human clinical trial evaluating ridge preservation with OSSIX™ Bone and a competitive graft, OSSIX™ Bone resulted in +39.3% new vital bone in just 4 months.

Source: Casarez-Quintana, A., et al., Comparing the histological assessment following ridge preservation using a composite bovine-derived xenograft versus an alloplast hydroxyapatite-sugar cross-linked collagen matrix. J periodontol, 2022. E-pub Jun 4



Product no. (SKU)	Size
3231 0009	5x5x5 mm
3231 0010	5x5x10 mm
3231 0011	5x10x10 mm

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Clinical Indications

Augmentation or reconstructive treatment of the alveolar ridge	Filling of periodontal defects	Filling of defects after root resection, apicoectomy and cystectomy
Filling of extraction sockets to enhance preservation of the alveolar ridge	Filling of periodontal defects in conjunction with products intended for Guided Tissue Regeneration (GTR) and Guided Bone Regeneration (GBR)	
Elevation of the maxillary sinus floor	Filling of peri-implant defects in conjunction with products intended for Guided Bone Regeneration (GBR)	

How to use OSSIX™ Bone?

- **Trim** carefully, dry or wet, if needed. Important to maintain 3 dimensions. Do not smash it to granules
- **Saturate** in the patient's blood at the site of implantation until the entire device changes its color from white to red
- **Align** with natural crestal bone for optimal results. Do not overfill or condense
- **Suture** over OSSIX™ Bone in the socket to hold in place or use membrane, if necessary

Tips for Users

- Do not apply pressure when dry – it will crumble!
- Following saturation in the patient's blood, do not condense the material

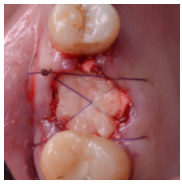
Discover Expert Insights on OSSIX™ Bone

A patient's ridge preservation using OSSIX™ Bone and PRF enabled implant placement without further augmentation, with stable results observed at a two-year follow-up.

Pre-op: Baseline case scenario. The first molar required extraction

Post molar extraction residual bridge

Surgery: OSSIX™ Bone being used for ridge preservation



In order to provide further stability to the bone filler, platelet rich fibrin was used

Post-op: A clinical image taken at a four-month following bone grafting

Source: Dr. Alberto Monje, DDS, MS. Socket Preservation with OSSIX™ Bone.
Dr. Monje receives financial support from Dentsply Sirona for this case study.

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OSSIX® Plus

Maintains Long-Lasting Barrier Effect (4-6 Months)[1]

Discover OSSIX® Plus: Collagen Barrier Membrane

OSSIX® Plus, a trusted solution designed to support your Guided Bone (GBR) and Tissue (GTR) regeneration procedures

Why Choose OSSIX® Plus?

- **Extended Barrier Functionality**: Provides between 4 to 6 months of barrier function, ensuring optimal protection during the critical healing period[1]
- **Degradation Resistance:** Has long-lasting resistance to degradation[11-12]. When exposed, it remains resistant for 3-5 weeks[15]
- **Handling:** Adheres firmly and completely when wet[16]
- **Resorbable and Biocompatible:** Powered by GLYMATRIX® technology[1], in which the porcine collagen telopeptides are removed, thereby eliminating its genetic characteristics.

Clinical Indications

Ridge augmentation for later implant insertions	Simultaneous ridge augmentation and implant insertions	Ridge augmentation around implants inserted in delayed extraction sites	
Alveolar ridge preservation consequent to tooth (teeth) extraction(s)	Over the window in lateral window sinus elevation procedures	In intra bony defects around teeth	In furcation defects in multi rooted teeth
Ridge augmentation around implants inserted in immediate extraction sites	In implants with vertical bone loss due to infection, only in cases where satisfactory debridement and implant surface disinfection can be achieved	For treatment of recession defects, together with coronally positioned flap	

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How to use OSSIX® Plus?

- **Hydrate** in saline for 30 seconds
- **Trim,** if needed, to the estimated final size
- **Place in position;** do not suture or tack through the membrane. Use periosteal sutures
- **Maintain a 1 mm gap** between adjacent teeth and the membrane
- **Use a periosteal suture to hold in place** if necessary

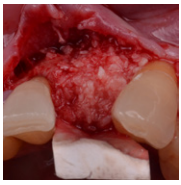
Tips for Users

- OSSIX® Plus should be trimmed with sterile scissors
- For easier handling, trim when dry
- **Do not** remove remnants during second stage as OSSIX® Plus continues to ossify[1,14-15]

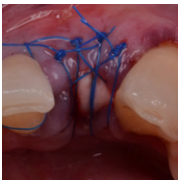
Discover Experts' Insights on OSSIX® Plus

A patient who underwent tooth extraction and socket grafting due to infection, allowing simultaneous implant placement.

Pre-op: baseline case scenario: advanced bone loss in lower incisor



Surgery: Occlusal view. OSSIX® Plus was placed lingually before positioning the bone graft



Occlusal view of flaps positioned and sutured with OSSIX® Plus partially exposed

Implant placement at 4 month follow up

Post-op: Clinical evaluation at 18-month follow-up

Source: Clinical Case Study by Dr. Alberto Monje, DDS, MS. Simultaneous Ridge Augmentation.
Dr. Monje receives financial support from Dentsply Sirona for this case study.

Product no. (SKU)	Size
3290 5284	15x25 mm
3290 5285	25x30 mm
3290 5286	30x40 mm

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OSSIX® Volumax

Maintains Volume Where It Matters Most

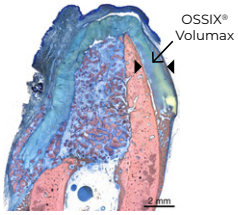
Discover OSSIX® Volumax: Collagen Scaffold

OSSIX® Volumax is a novel 3D multi-layer collagen scaffold[19-20] to ensure optimal healing and long-term success. OSSIX® Volumax provides a stable basis for restoring the lost volume of a deficient ridge[21-22*].

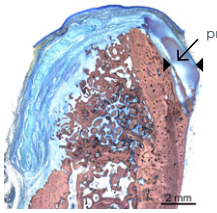
Why Choose OSSIX® Volumax?

- **Volumizing Properties:** Provides volume to the augmented site – enlarging the operated tissue[21-22*]
- **Extended Barrier Functionality:** Provides a long-lasting barrier effect for 4-6 months[21-22*]
- **Ossification Properties:** Localized ossification has been observed as early one month, providing long-term stability and bone integration[21-22*].

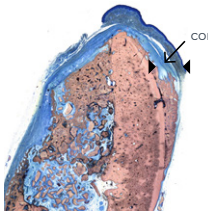
Pre-clinical histology findings suggest that OSSIX® Volumax supports tissue regeneration through extended longevity and ossification*



1 month



3 months



6 months

Source: Yuval Zubery, Arie Goldlust, Thomas Bayer, Shane Woods, Nicolette Jackson, W. Aubrey Soskolne. Alveolar Ridge Augmentation and Ossification of Thick vs. Thin Sugar Cross-linked Collagen Membranes in a Canine L-shape Defect Model, 1. Datum Dental Ltd., Israel, 2. MPI Research, MI, USA, 3. Alizee Pathology, MD, USA, 4. Department of Periodontology, Hebrew University, Israel, 2016

Product no. (SKU)	Size
3290 5287	10x12.5 mm
3290 5288	15x25 mm
3290 5289	25x30 mm
3290 5290	10x40 mm

* Animal model results do not necessarily translate to clinical results.

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Clinical Indications

Ridge augmentation for later implant insertions	Simultaneous ridge augmentation and implant insertions	Localized gingival augmentation	In furcation defects in multi rooted teeth
Alveolar ridge preservation consequent to tooth (teeth) extraction(s)	Over the window in lateral window sinus elevation procedures	In intra bony defects around teeth	For treatment of recession defects, together with coronally positioned flap
Over the window in lateral window sinus elevation procedures. In implants with vertical bone loss due to infection, only in cases where satisfactory debridement and implant surface disinfection can be achieved	Ridge augmentation around implants inserted in delayed extraction sites	Ridge augmentation around implants inserted in immediate extraction sites	

How to use OSSIX® Volumax?

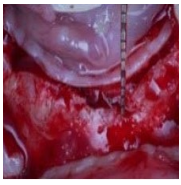
- **Trim** to the estimated final size. Most easily trimmed when dry
- **Should be immersed** in sterile saline for 30 seconds
- **Use periosteal or horizontal mattress sutures to stabilize** OSSIX® Volumax when necessary

Tips for Users

- Close the soft tissue over it with tension-free sutures to avoid compressing OSSIX® Volumax
- Do not remove remnants during second stage as OSSIX® Volumax continues to ossify
- Do not fixate with screws, tacks, or by suturing through the membrane

Discover Expert Insights on OSSIX® Volumax

A patient achieved vertical augmentation in her lower jaw with OSSIX® Volumax after traumatic bone loss.



Pre-op: Baseline View. Traumatic bone loss observed in the lower jaw

Surgery: Autogeneous and Xenograft Mixture (50-50%) fixed to the area

Surgery: OSSIX® Volumax fixed, covering both the bone mixture and defect

Post-op: Seven-month follow-up new bone was evident

Post-op: Seven month follow up occlusal view

Source: Clinical Case Study by Dr. Gerardo Chacón. Vertical Augmentation After Traumatic Bone Loss Due a Car Accident in Lower Jaw Using OSSIX® Volumax Scaffold.
Dr. Chacón receives financial support from Dentsply Sirona for this case study.


Once you've tried it,
you can't do without it!
OSSIX® Regenerative Solutions
Remarkable Regenerative Power

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OSSIX® Remarkable Regenerative Power

Scan to connect directly with the Global Product Group and enter the website to get more details

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