PLENA

Collagen products for regeneration

sweden & martina

PLENA

PLENA is a line of regenerative dental membranes in highly purified porcine collagen, created with a technology that allows to modulate the resorption times in the production phase adapting them to the different needs of the clinician and to different applications.

Designed for bone and tissue regeneration in oral surgery, highly biocompatible, easy to position and fix, PLENA membranes combine effectiveness and ease of use.
They are available in two versions.

The line also includes PLENA Graft, the biomaterial in carbonate apatite granules from cancellous porcine bone, subject to the same rigorous production and purification controls.
The autologous bone-like structure makes it one of the most effective materials in reconstruction and filling procedures.

PLENA FLEX

Collagen membrane from purified porcine peritoneum

Its structure is permeable to macromolecules and nutrients but manages to create an effective barrier.

RESORPTION
3-4 months

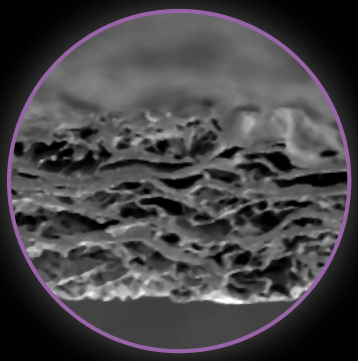
Flexible, easy to place

Soft, drapeable and easy to handle, very resistant at the same time

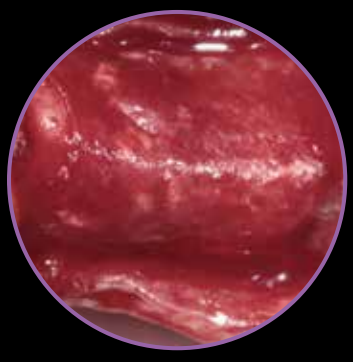
Easy to fix even with sutures or nail screws, **laceration resistant**

Can be used from **both sides**

Does not stick to instruments



50x SEM Image



Clinical image courtesy of dr. Marco Csonka, Catania

Indications:

- pre-implant bone regeneration procedures;
- peri-implant bone regenerations, both immediate and deferred post-extraction;
- periodontal regeneration (GTR).

	code	description
	**CDMPP1520**	PLENA FLEX resorbable collagen membrane 15x20 mm
	**CDMPP2030**	PLENA FLEX resorbable collagen membrane 20x30 mm

PLENA MEDIUM

Collagen membrane from purified intact porcine dermis

Its structure is permeable to macromolecules and nutrients but manages to create an effective barrier.

RESORPTION
6-9 months

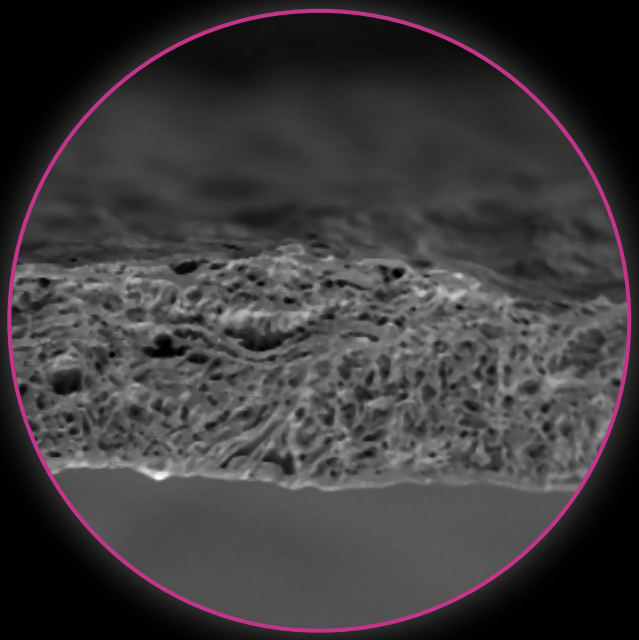
Good **resistance to traction**

Created with the **right balance between stiffness and handling**

Can be used from **both sides**

Easy to fix even with sutures or nail screws, **laceration resistant**

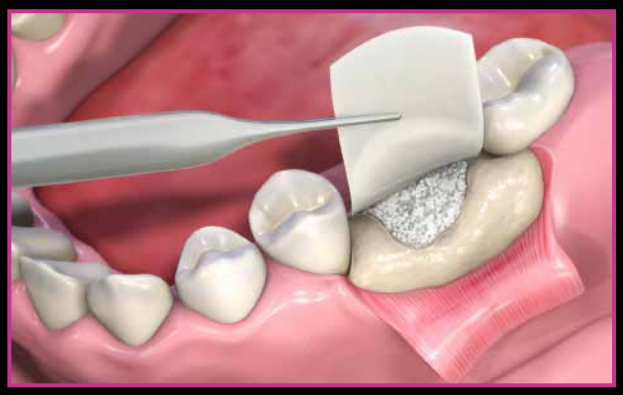
Does not stick to the instruments



50x SEM Image

Indications:

- Socket preservation;
- bone reconstructions;
- GBRs that, due to the intrinsic characteristics of the defect or the general condition of the patient, require a slow resorption of the membrane.



Instructional images

Clinical image courtesy of dr. Marco Csonka, Catania

	code	description
	**PDM1520**	PLENA MEDIUM collagen resorbable membrane 15x20 mm
	**PDM2030**	PLENA MEDIUM collagen resorbable membrane 20x30 mm

PLENA GRAFT

Biomaterial in carbonate apatite granules from highly purified porcine cancellous bone

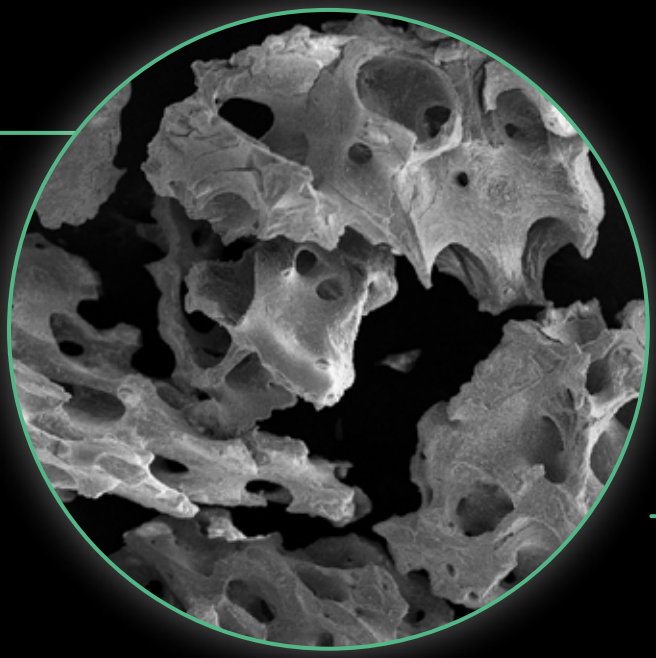
Plena Graft is subject to several rigorous steps in the production process to eliminate and inactivate antigens and microorganisms and make the product safe for clinical use.
Materials formed from carbonate apatite crystals are more osteoconductive than hydroxyapatite. Resorption and remodeling are much more similar to the autologous bone process than synthetic materials such as hydroxyapatite or tricalcium sulfate. The high porosity and roughness of the granules are two characteristics that significantly influence the adhesion of cells and accelerate resorption by osteoclasts and increase the affixing of osteoblasts from mesenchymal cells, as well as influence other factors related to the expression of the phenotype such as the production of type I collagen, osteocalcin, extracellular matrix and mineralized material.

RESORPTION
6-9 months

Safe purification process

Macropores range **between 0.1 mm and 1.0 mm**

Optimal porosity: large pores and granules with high surface roughness, features that **facilitate cell adhesion**



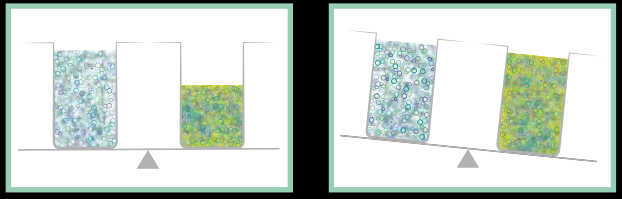
25x SEM Image

It demonstrates a high filling of the volume of the defect compared to other materials with the same weight

Structure of **carbonate apatite similar to autologous**

Indications:

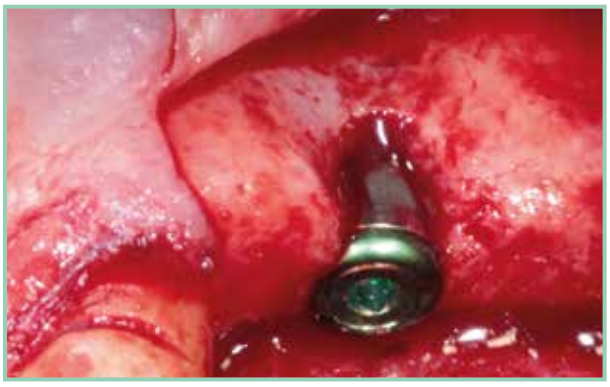
- reconstruction and increase of the alveolar crest;
- filling of defects post radicular resection, apicectomy, cystectomy;
- Socket preservation;
- filling of periodontal defects in association with membranes;
- **filling of peri-implant defects in association with products for GBR and GTR.**



Low density** (88% of empty space left by microgranules and 95% by macrogranules) = **better vascularization and osseointegration

Clinical case

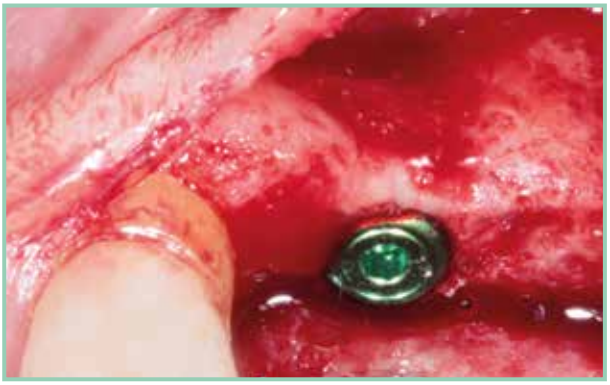
Courtesy of dr. Marco Csonka, Catania



Vestibular bone dehiscence at implant inserted in position 24

The defect is filled with Plena Graft; note the marked hydrophilicity of the material and its easy adaptability to the defect

The site is then protected with a Plena Flex resorbable membrane; easy intraoperative handling and excellent spontaneous adaptation to the receiving site



Result after 5 months. Once the reopening of the regenerated site has been performed, an advanced state of maturation of the newly formed bone tissue is noted; there are some residual granules of biomaterial perfectly osseointegrated and adherent to the underlying tissue

The correct use of Plena biomaterials and flap passivation techniques and layer suturing
dr. Marco Csonka

	code	description
	**PMC0510**	PLENA Graft, 0.5 cc jar
	**PMC1010**	PLENA Graft, jar 1 cc

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The Sweden & Martina plant produces Medical Devices according to the cGMP in force in the USA and in other countries of the world.