

Zymo-Teck® process: the secret of the quality of grafts and membranes



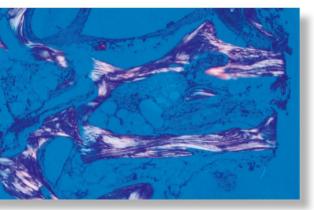
Bioteck®, a leader in the production of tissue substitutes of natural origin, has developed the exclusive deantigenation **Zymo-Teck®** process. The **Zymo-Teck**® process, unlike other processes based on high temperature treatments or using chemical solvents, uses enzymes, natural proteins able to precisely and selectively remove the various unwanted substances, making the tissues completely bio-compatible and devoid of treatment residues. **Zymo-Teck**® also preserves useful molecules, such as collagen in its natural structure and, operating at controlled temperatures, does not alter the structural characteristics of the tissues.

The stringent in-line quality controls implemented by **Bioteck®** at all stages of processing guarantee the highest quality of grafts: to obtain the best surgical outcome.

Improve your knowledge about the Zymo-Teck® process by selecting the QR-Code on the right.

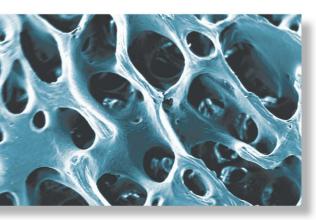


Preserved bone collagen



Grafting bone collagen into the defect creates a precise biological condition: osteoblasts, the cells responsible for the formation of new bone tissue, produce collagen fibers that are then saturated by calcium minerals. It's the same three-dimensional structure of collagen that allows the nucleation of crystals of bone apatite, through a physical phenomenon called epitaxy. In addition, the type I bone collagen stimulates, both at cellular and subcellular level, an extremely high number of processes involved in bone regeneration. The presence of bone collagen in **OX®** is also demonstrated in polarised light: collagen fibres, having a regular texture, presents a refractivity characteristic that makes it look lighter.

Total remodeling



OSTEOXENON® is reworked and reabsorbed through the action of osteoclasts. This happens with entirely physiologic kinetics: as well as the patient's bone it is fully remodeled within 8-12 months, as it happens for **OSTEOXENON**®: after this period it is completely replaced by the patient's bone. This is possible because **OX®**, unlike other materials, is recognized as the optimum substrate by osteoclasts that reabsorb it physiologically; only in this case, in fact, the regenerative process may end with the complete replacement of the graft. If the material is remodeled and is reabsorbed physiologically there can be no loss of volume. If the material is reabsorbed too quickly (e.g. calcium phosphate) or too slowly (e.g. synthetic hydroxyapatites) the volume of new endogenous bone is not equal to the grafted volume. **OSTEOXENON®**, however, by remodeling itself through osteoclastic activity, it keeps the grafted volume.



BIOTECK°

Bioteck S.p.A.

Via E. Fermi 49 - 36057 Arcugnano (Vicenza) - Italy Tel. +39 0444 289366 - fax: +39 0444 285272 info@bioteck.com - www.bioteck.com

CE₀₄₇₇

Production and R&D Center: Via G. Agnelli, 3 - 10020 Riva Presso Chieri (Turin) - Italy.

Bioteck® is an Italian company producing bone substitutes and protective membranes that are successfully used in orthopaedics, neurosurgery, oral and maxillofacial surgery.

Founded in 1995, the company continues to grow constantly and now operates in more than 50 countries

A firm commitment to scientific research forms the basis for the innovative solutions offered by **Bioteck®** products. The company collaborates on numerous national and international research projects, which have driven the basic research and helped in writing important chapters

The in-depth knowledge acquired by **Bioteck**® through its research ensures the absolute quality of its products, which are subjected to strict environmental and quality controls, thereby quaranteeing a product meeting the highest quality and safety standards.

Bioteck® applies a policy of total transparency, opening up the doors of its Production and R&D Center for the monitoring of its innovative process and the intense scientific research carried out by its staff.



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In over twenty years of scientific research and clinical practice, **Bioteck**® has made an important contribution to the clinical/scientific knowledge in the

The **Bioteck Academy** is the meeting place of all the excellences that continuously contribute to the development of this knowledge and Bioteck® products.

The Academy has developed a culture of sharing scientific knowledge aimed at the dissemination of best techniques and practices in the various areas of regenerative surgery and is open to all professionals who decide to participate in this activity by sharing their surgical experience.

More information on the activities of the Academy can be found at: www.bioteckacademy.com

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Keep you updated on the most recent OsteOXenon publications





Complete line of collagenated bone substitutes and membranes

ENZYMATIC DEANTIGENATION PRESERVED BONE COLLAGEN TOTAL REMODELING **CLINICAL SUCCESS**







GRANULES IN VIAL

OX37 Cancellous (Granules	1 btl / 0.25g ~0.5cc 0.25-1 mm						
Carreenous	Granaics	1 Day 0.23g 0.3cc	2 0.23 1 111111					
OX30 Cancellous C	Granules	1btl / 0.5g ~1cc	0.25-1mm					
OX33 Cancellous (Granules	1 btl / 2cc	2-3mm					
OX34 Cancellous G	Granules	1 btl / 1g ~2cc	2-4mm					
OX36 Cancellous G	Granules	1 btl / 1g ~2cc	0.25-1mm					
OX38 Cancellous G	Granules	1 btl / 2g ~4cc	0.25-1mm					
OX39 Cancellous G	Granules	1 btl / 4cc	2-3mm					
OX50 Cancellous (Granules	1 btl / 0.5g ~1cc	1-2mm					
OX66 Cancellous (Granules	1 btl / 1g ~2cc	1-2mm					
OX40 Cortical G	iranules	1 btl / 0.5g ~1cc.	0.25-1 mm					
OX35 Cancellous Co	rtical Granules	1 btl / 0.25g ~0.5cd	0.25-1 mm					
OX31 Cancellous Co	rtical Granules	1 btl / 0.5g ~1cc	0.25-1mm					
OX32 Cancellous Co	rtical Granules	1 btl / 1g ~2cc	0.25-1mm					
OX41 Cancellous Co	rtical Granules	1 btl / 2g ~4cc	0.25-1mm					



BLOCKS

OX51 Cancellous block	1pc	10 x 10 x 10 mm
OX52 Cancellous block	1рс	10 x 10 x 20 mm
OX54n Cancellous block	1рс	10 x 20 x 3 mm
OX55n Cancellous block	1pc	10 x 20 x 5 mm



FLEX SHEETS

OX01 Flex Cancellous sheet	1pc	25	Χ	25	Χ	3	mn
OX02 Flex Cortical sheet	1рс	25	Χ	25	Χ	2-2.5	mr
OX03 Flex Cortical sheet	1pc	21-2	5 x	23-2	27 :	x 0.2	mn
OX08 Flex Cortical sheet	1pc 2	21-25	5 X .	23-2	27 x	0.9	mm
OX09 Flex Cortical sheet	1 pc 2	21-25	- X .	23-2	27 x	0.5	mm



GRANULES IN SYRINGE

OX21n Cancellous Cortical Gel	1 syringe	0.25 ml
OX22n Cancellous Cortical Gel	1 syringe	0.50 ml
OX23 Cancellous Cortical Gel	1 syringe	1 ml



	Granules in vial				Granules in syringe	Flex S	Blocks		
	0X30 0X37 0X36 0X38	0X31 0X35 0X32 0X41	0X33 0X34 0X39	0X40	0X50 0X66	0X21n 0X22n 0X23	0X01	0X02 0X08 0X03 0X09	0X51 0X52 0X54n 0X55n
= suggested = alternative/optional	Cancellous Granules	Cancellous Cortical Granules	Cancellous Granules	Slow resorption Cortical Granules	Cancellous Granules	Cancellous Cortical Gel	Flex Cancellous Sheet	Flex Cortical Sheet	Cancellous Blocks
Periodontal defect (very small, difficult access)									
Periodontal defect - Infrabony defects (1-3 walls) - Furcation defects (class I or II)								OX-03	
Peri-implant defect (up to 3 exposed threads)								OX-03	
Peri-implant defect (more than 3 exposed threads)								OX-03/09	
Post-extractive socket (preservation)									
Sinus lift (Misch, traditional)			As an alternative to 0X31/32		As an alternative to 0X33/34/39				
Sinus lift (variation according Tulasne or membrane tear, if > 5 mm)			As an alternative to 0X31/32		As an alternative to 0X33/34/39		As an alternative to OX-31/32	OX-02	
Sinus lift (Summers)		As an alternative to 0X21n/22n							
Horizontal ridge augmentation* (onlay)	To fill gaps, if present	To fill gaps, if present				To fill gaps, if present	As an alternative to 0X-51/52/ 54n/55n	OX-08/09	
Horizontal ridge augmentation (split crest)									
Vertical ridge augmentation and contemporary implant placement (block technique)	To fill gaps, if present	To fill gaps, if present				To fill gaps, if present		OX-03/09	
Vertical ridge augmentation and contemporary implant placement (Ludovichetti approach)								OX-02	
Vertical ridge augmentation* (onlay, two steps)	To fill gaps, if present	To fill gaps, if present				To fill gaps, if present		OX-08/09	
Vertical ridge augmentation (inlay)	To fill gaps, if present	To fill gaps, if present				To fill gaps, if present			
Volumetric preservation (for esthetics)								OX-03/08/09	

^{*} Or a combination of horizontal and vertical augmentation