BIOTECK®

HEART

# pericardium membrane

The perfect **balance**
between **Nature** and **Biotechnology**

BIOTECK®

# **Heart®** pericardium membrane

The Heart® membrane can be sutured without problems due to its high tensile strength.

*Suture pull-out strength test. Brescia University, Department of Mechanical and Industrial Engineering*

**Heart®** is an equine origin pericardium membrane treated with **Zymo-Teck®**, the exclusive deantigenation process based on the use lytic enzymes. The particularly long protection time (3-4 months), the high adhesiveness to tissues and excellent tensile strength are the result of maintaining the three-dimensional structure and the links between the collagen fibres of the native tissue. These features make **Heart®** the ideal solution for the largest number of surgical applications.
**Heart®** is used in regenerative medicine, in Oral and Maxillofacial Surgery, Orthopedics and Neurosurgery.


## Features

> **slowly** resorbable
> **resistant** and **elastic**
> durable **barrier effect**
> **practical** and **easy to handle**
> easily **suturable**

**Protection time: 3-4 months**

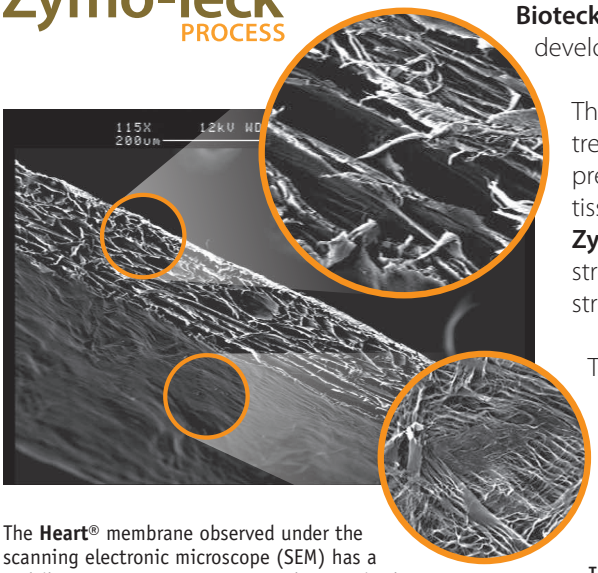
CE
0373

## Codes

| | | | |
|---|---|---|---|
| **HRT-003** | Pericardium Membrane | 2 membranes | 15 x 20 x 0.2 mm |
| **HRT-005** | Pericardium Membrane | 2 membranes | 20 x 20 x 0.2 mm |
| **HRT-001** | Pericardium Membrane | 1 membrane | 30 x 25 x 0.2 mm |
| **HRT-002** | Pericardium Membrane | 1 membrane | 50 x 30 x 0.2 mm |

# Process Zymo-Teck®: the secret of the **quality** of **grafts** and **membranes**

Zymo-Teck® PROCESS




The **Heart**® membrane observed under the scanning electronic microscope (SEM) has a multilayer, compact appearance, characterised by a close-knit weave of collagen fibres.

*Padua University, Biology Department, Electronic Microscopy Service.*

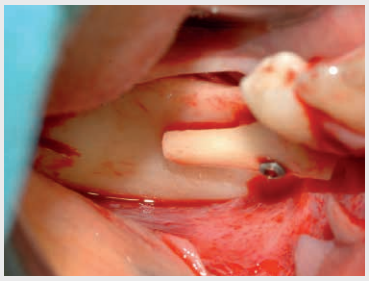
**Bioteck®**, a leader in the production of tissue substitutes of natural origin, has developed the exclusive deantigenation **Zymo-Teck®** process.

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.

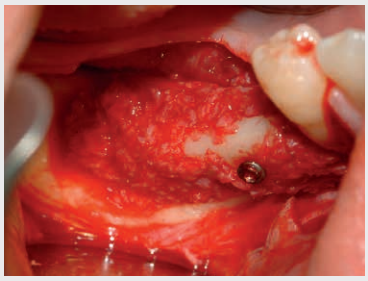
Improve your knowledge about the **Zymo-Teck®** process by selecting the QR-Code on the right.

# Surgical application

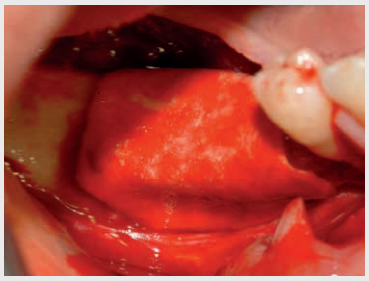


Fixation with osteosynthesis screw of a mandibular ramus graft on atrophic mandibular crest. Notice how the back of the graft is not in contact with the recipient site.

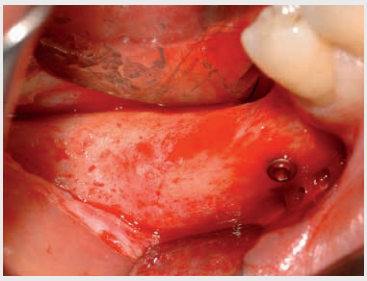
*Courtesy of Dr. D. A. Di Stefano, Milan, Italy*



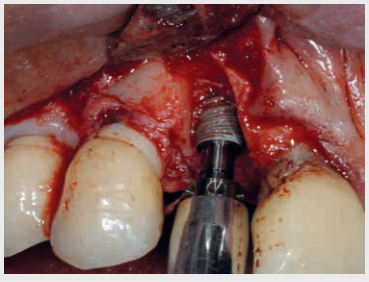
The space between the two cortical surfaces is filled with bone granules.



Coverage of the grafted site with the Heart® pericardium membrane (HRT-002).

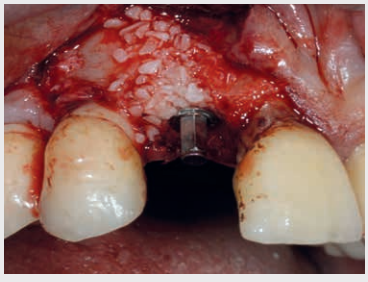


Reopening of the regenerated site 5 months after surgery. The osteosynthesis screw highlights the graft positioning point; note the excellent integration between it and the recipient site.

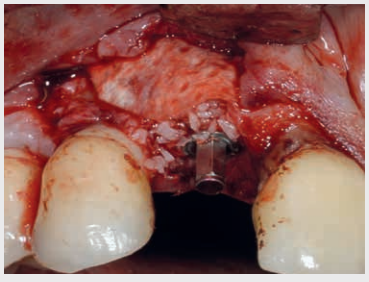


Implant insertion in position 1.1. The socket appears devoid of vestibular wall and requires a guided bone regeneration intervention.

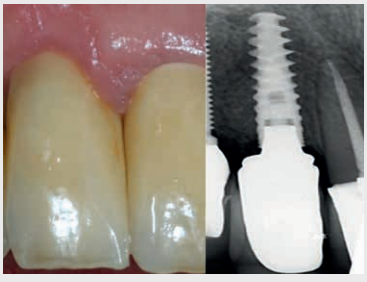
*Courtesy of Dr. M. Buda, Naples, Italy*



The defect is filled with bone granules.



Coverage of the grafted site with the Heart® pericardium membrane (HRT-001).



Soft tissue healing 7 months after surgery and radiographic image of the regenerated site. Note the excellent level of the papilla and the maintenance of the underlying bone volumes.

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**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 around the world.

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 in bone biology.
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 guaranteeing 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.

CSQ ISO 9001

CERTIFIED IQNet MANAGEMENT SYSTEM

CSQ MED ISO 13485

GMP MINISTRY OF FOOD AND DRUG SAFETY

bioteck.com

BIOTECK® Academy

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