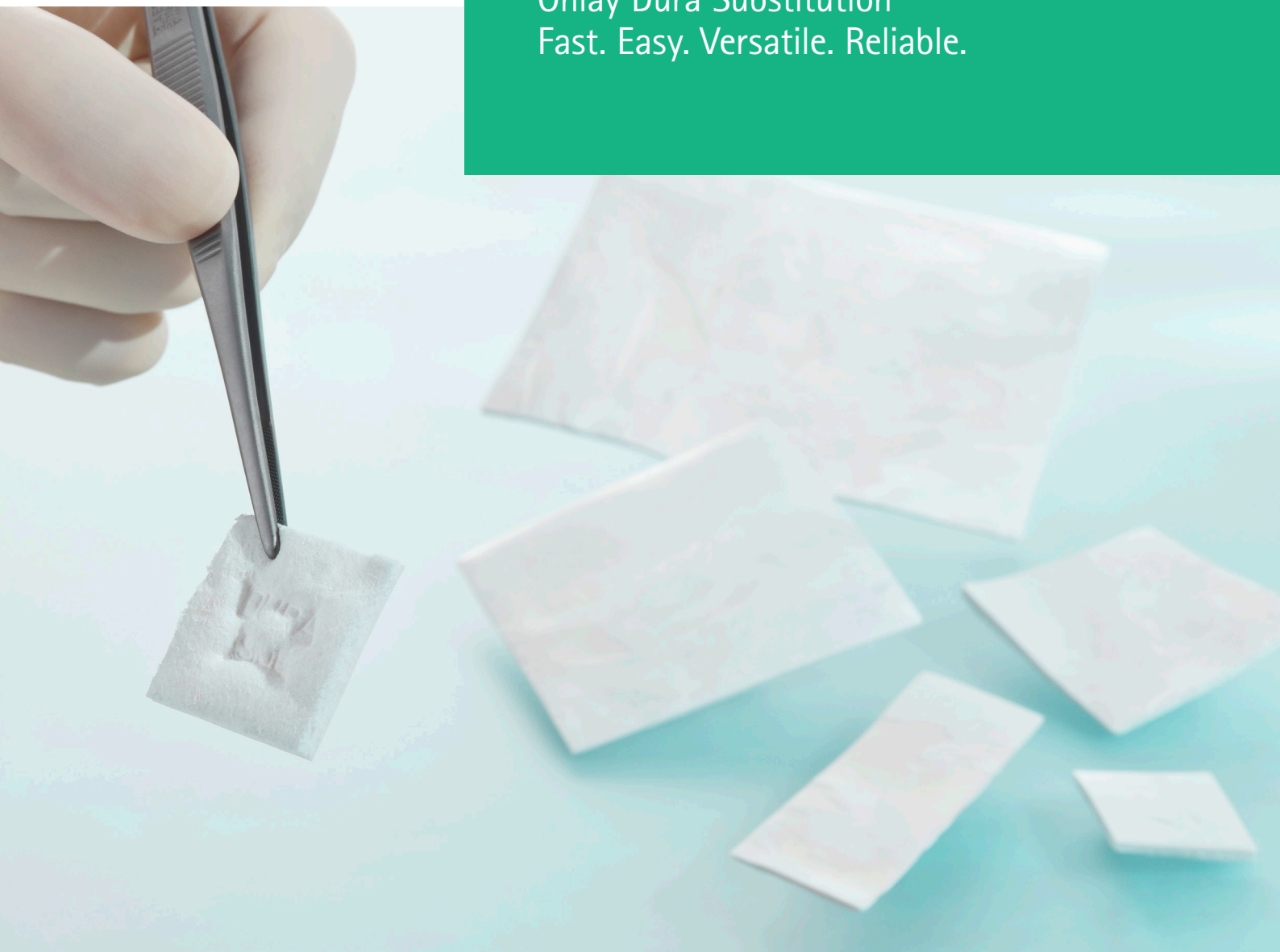
B|BRAUN
SHARING EXPERTISE

Neurosurgery

Aesculap® Lyoplant™ Onlay

Onlay Dura Substitution
Fast. Easy. Versatile. Reliable.



Aesculap® Lyoplant™ Onlay

Onlay Dura Substitution – Fast. Easy. Versatile. Reliable.

Fast[1,2,4]
- Time-saving Onlay application
- Familiar use

EASY[1,2,4,8]
- Good handling
- Thinner than comparable Onlay products
- Elastic and flexible
- Good adaptability to the defect and surrounding anatomical structure

VERSATILE[1-5]
- Onlay or suturable application
- Approved for cranial and spinal use
- One dura substitute for various indications

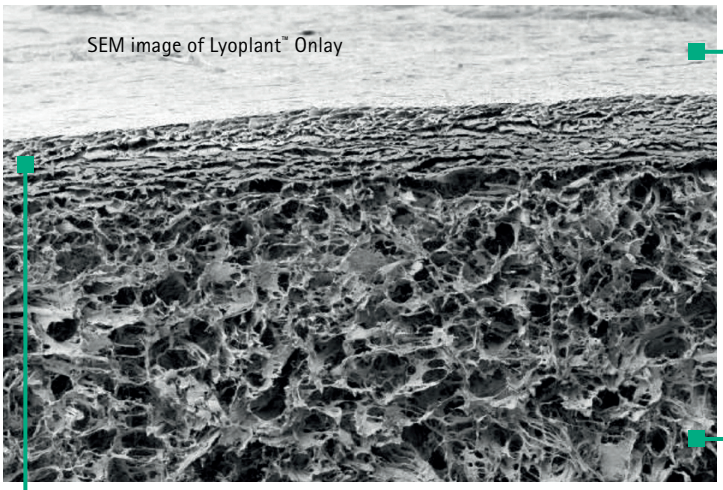
RELIABLE[1,2,4-6,9]
- High liquid tightness of the implant supports preventing CSF leakages
- Integrates with the body's own connective tissue cells
- High tensile strength of the implant prevents suture pull out

Biological bilayer membrane

Lyoplant™ Onlay is a biological, absorbable dura substitution consisting of a bilayer membrane, designed to provide high ease of use.[1,2,4,6]

The product stands out due to the fast application, the easy handling, the versatile usage and the reliable treatment for the patient.[1-9]

It allows for a simple Onlay application with the possibility to incorporate suture fixation if necessary.[2]



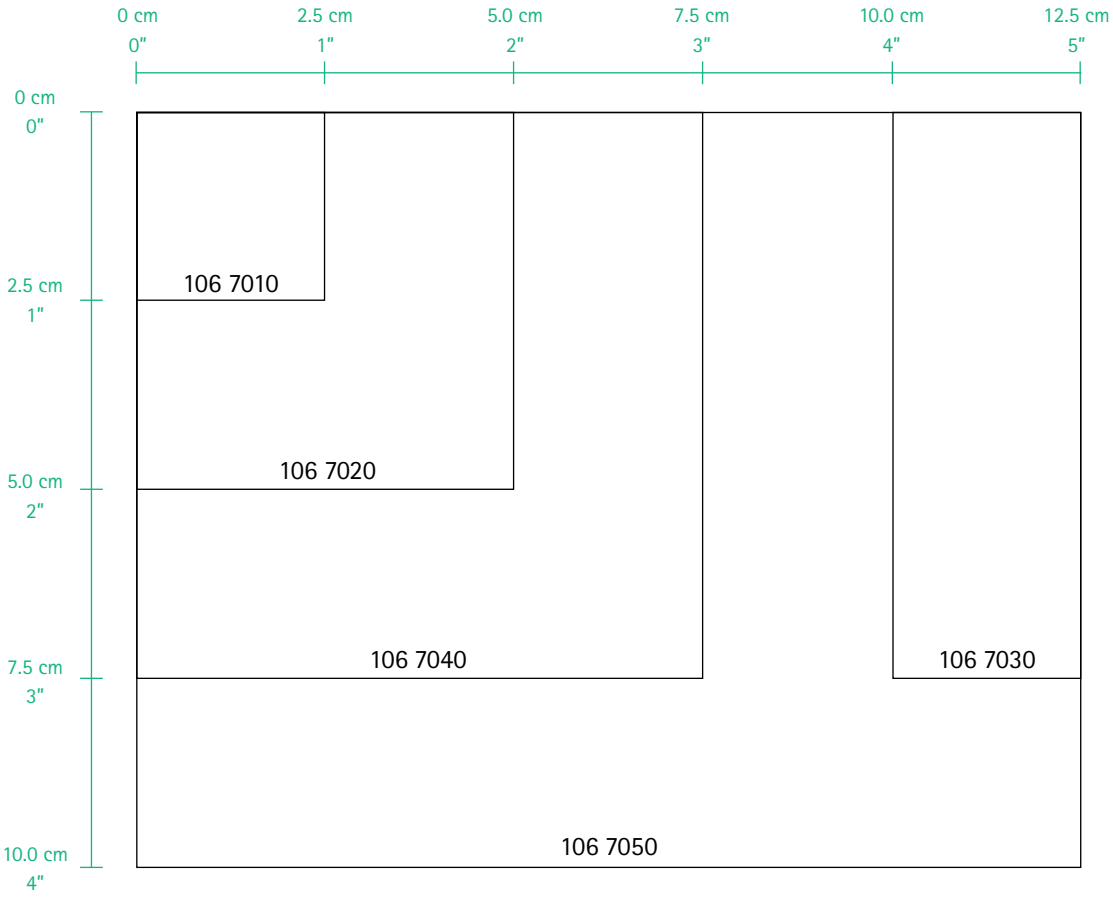
The close connection between the two layers as well as the production of the materials itself are obtained by a very gentle lyophilisation (freeze-drying) process.
The **two layers** are not chemically crosslinked.

The **first layer** is a highly purified collagen element that is produced from bovine pericardium. It is the same material used for our well-established suturable dura substitution Lyoplant™.
Selling more than 1,000,000 units of Lyoplant™ over now many years shows the proven trust in this product.

The second layer is also a highly purified collagen element, made from bovine split hide. The fleece-like spongy quality of this layer allows the implant to adhere to the dura around the defect. Thus, Lyoplant™ Onlay can be applied as an Onlay simply by laying the implant on the dura. This possibility of a sutureless closure of the dura defect can save valuable OR time.[1,4,5]

Configurations

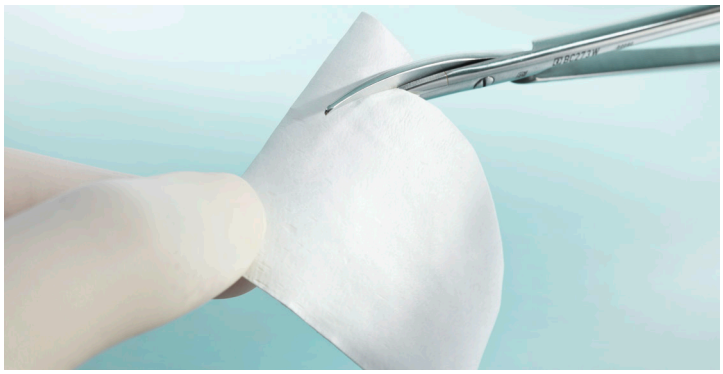
Sizes		Content	Art-No.
2.5 x 2.5 cm	1" x 1"	1 piece	106 7010
5.0 x 5.0 cm	2" x 2"	1 piece	106 7020
2.5 x 7.5 cm	1" x 3"	1 piece	106 7030
7.5 x 7.5 cm	3" x 3"	1 piece	106 7040
10.0 x 12.5 cm	4" x 5"	1 piece	106 7050



Mode of Application

CUT

- Lyoplant™ Onlay can be cut into the required shape and size easily.
- **Onlay technique:**
  The implant should overlap the dura defect by approx. 1 cm to ensure a high level of adhesion and a liquid-tight seal.
- **Suturing:**
  The implant should be cut as closely as possible to the defect size.



REHYDRATE

- Ensure that the fleece-like, porous side (labeled "DURA SIDE") is facing the dura. Which side has to face the dura should be identified before rehydration.
- Prior to implantation, Lyoplant™ Onlay is placed in sterile saline solution or in another isotonic solution to ensure better suppleness and flexibility of the implant.

APPLY

- **Onlay technique:**
  The implant has to be laid flat against the defect edges, ensuring that it is not taut.
- **Suturing:**
  If required and if considered necessary by the user, Lyoplant™ Onlay can be sutured in place. The implant should be fixed with non-absorbable suture material (polyester, polypropylene), using atraumatic round-bodied needles.
- The implant can be sealed with fibrin glue.

[1] Clinical trial. Neulen, A et al. Evaluation of efficacy and biocompatibility of a novel semisynthetic collagen matrix as a dural onlay graft in a large animal model. Acta Neurochirurgica. 2011 July 9; 153(11):2241-2250.

[2] Clinical trial. Greifzu F. Clinical Study report LYON study – Assessment of the performance of Lyoplant® Onlay for Duraplasty. 2019.

[3] Clinical trial. Report of a prospective, multi-center, randomized, parallel controlled clinical trial evaluating the effectiveness and safety of the absorbable onlay dura substitute Lyoplant® Onlay in dural repair. 2020.

[4] Expert Report. Bode F. Expert report – Lyoplant® Onlay. 2016.

[5] Expert Report. Nestler U. Expert report – Lyoplant® Onlay. 2015.

[6] Aesculap AG. Rasche A. Results of a Lyoplant® Onlay Evaluation Form. 2015.

[7] Aesculap AG. Test report determination of thickness, test number 2011-RB-62.

[8] Aesculap AG. Test report - Lyoplant® Onlay 180° Folding Test. 2011.

[9] Aesculap AG. Technical data Lyoplant® Onlay. 2011.

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