Product Code and Specification

Product Model	Specifications		
	Width (±5mm)	Length (±5mm)	Thickness (mm)
RDS-1	15	20	0.1~0.5
RDS-2	20	30	
RDS-3	30	40	
RDS-4	40	60	
RDS-5	60	60	
RDS-6	60	80	
RDS-7	60	140	
RDS-8	80	80	
RDS-9	80	120	
RDS-10	100	150	
RDS-11	150	150	

References

- *Shi Z, Xu T, Yuan Y, Deng K, Liu M, Ke Y, et al. A new absorbable synthetic substitute with biomimetic design for dural tissue repair. Artif Organs. 2016;40:403-13.*
- *Novel Regenerative Nanofibrous Bio-device for Dural Defect Repair. Congress of Neurological Surgeons Annual Meeting, Washing DC, USA, 2011.*
- *In-vitro and clinical study on a novel synthetic absorbable biomimetic dural substitute. European Society for Pediatric Neurosurgery(ESPN) Congress, Rome, Italy, 2014.*
- *Electrospum Fibrous Mats with High Porosity as Potential Scaffolds for Skin Tissue Engineering. Biomacromolecules, 2008,9(7):1795-1801.*
- *Development of Novel Nanofibrous Dural Substitute for Dural Repair. The 14th World Federation of Neurological Societies Interim Meeting, Pernambuco, Brazil, 2011.*
- *Francesco Zenga , et al. Nanofibrous Synthetic Dural Patch for Skull Base Defects: Preliminary Experience for Reconstruction after Extended Endonasal Approaches. Journal of Neurological Surgery Reports 2016;77:e50–e55.*
- *Kunxue Deng, Xun Ye, Yaya Yang, Man Liu, et al. Evaluation of efficacy and biocompatibility of a new absorbable synthetic substitute as a dural onlay graft in a large animal model. Neurological Research 2016.*

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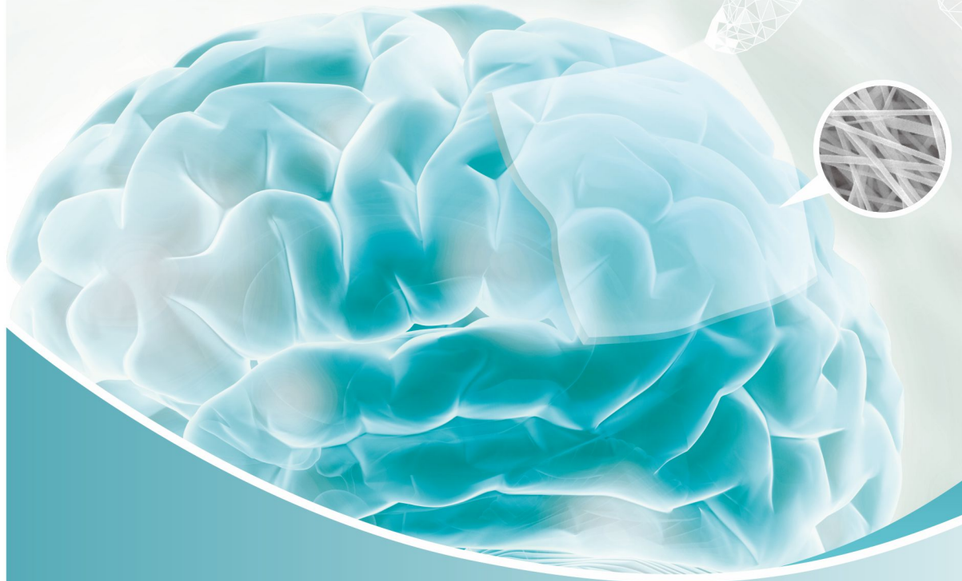
CE 0086

ReDura™

Biomimetic-Synthetic-Absorbable
Dural Substitute



- Rapid Repair & Regeneration
- Long Term Safety
- Excellent Handling & Conformability
- High Strength & No-swelling
- Onlay & Suture

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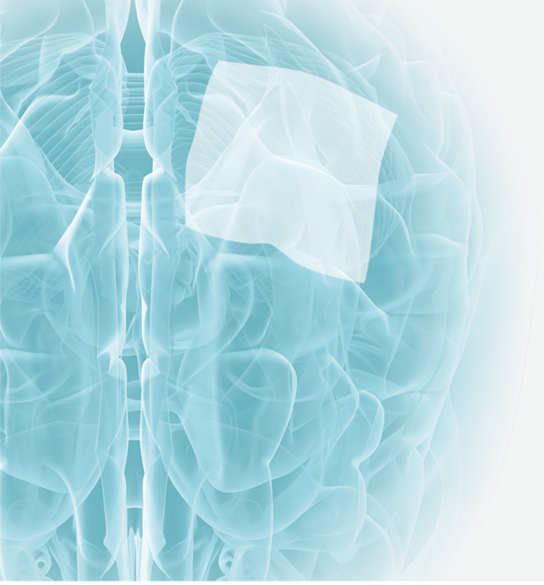
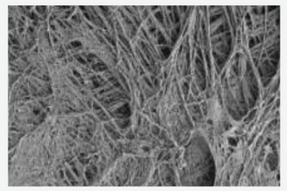


ReDura™

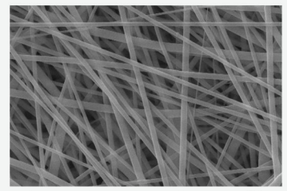
ReDura™ is made of poly-L-lactic acid(PLLA), which is FDA approved and has been applied worldwide in medical devices and proven its biocompatibility and non-toxicity.

Rapid repair and regeneration

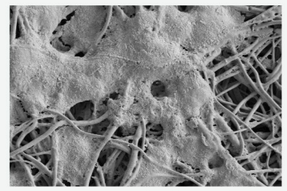
ReDura™ resembles microstructure of human extracellular matrix(ECM) which provides ideal scaffold for cell proliferation and tissue regeneration.



Microstructure of native dura



Microstructure of ReDura™



Cells adhere tightly to the nanofibers of ReDura™

Prevent cerebrospinal fluid (CSF) leakage

ReDura™ is hydrophobic and acts as a physical barrier to prevent CSF leakage.

No liquid leakage using ReDura™

Excellent conformity

After hydration, ReDura™ becomes soft and conforms well to brain contour.

Native dura

ReDura™

High Strength

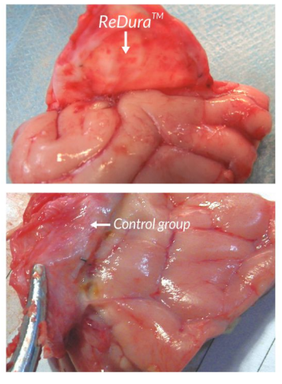
ReDura™ is of high mechanical strength.

Product	Strength (N/cm²)
ReDura™	1.5-2
Control group	~0.45

Anti-adhesion

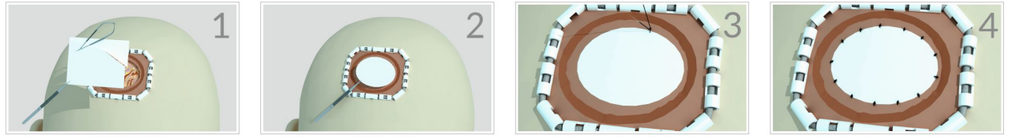
ReDura™: smooth surface of brain tissue with no adhesion to implanted material.

Control group: adhesion of native dura to brain tissue.



Clinical Guide

Suture procedure:



1 Trim ReDura™ into a suitable shape as needed.

2 Place ReDura™ onto the dural defect.

3 Fix ReDura™ into place by routine suturing with 4-0 sutures, or sutures of the surgeon's choice. During suturing, pinholes should stay 2-3mm away from the edge of ReDura™ to ensure a watertight closure.

4 Suturing Finished.

Onlay procedure:

1 Place the ReDura™ into normal or cold saline.

2 Press onto ReDura™ to ensure it absorbs the saline, remove it once it becomes translucent.

3 Trim ReDura™ into a suitable shape, the edges of ReDura™ should be beyond the defect area by 20-30mm.

4 Apply ReDura™ to cover the dural defect, ensuring the overlap of 20-30mm- a Valsava manouvre can be performed to ensure a watertight closure. Sealant or sutures can be applied if a CSF leak is detected.