

Bioweb™

PTFE/PU Composite Membrane

Overview-

Zeus Bioweb™ is a non-woven composite membrane produced by electrospinning biocompatible PTFE and PU into polymeric nanofibers. Collectively, these nanofibers form a product well-suited for encapsulating implantable stents and scaffolds.

Bioweb™ PTFE/PU composite membranes provide an efficient adhesion platform for stents and scaffolds, enabling low-profile encapsulation over nitinol frames without sutures at much lower temperatures (266 °F / 130 °C) than traditional ePTFE coverings (572 °F / 300 °C). In addition to lower temperature bonding, Bioweb™'s biocompatible PU layer combined with the PTFE layer also provides isotropic mechanical properties, allowing Bioweb™ to encapsulate a wider variety of frames and unique geometries.

As a global leader in the production of medical device components, we provide a wide array of resources, including an extensive network of field application engineers (FAEs), to assist you in bringing new technologies to the market. Our team will work with you to evaluate your frame structures, confirm our ability to encapsulate them with prototype samples of Bioweb™, and before commercialization, guide you through an easy technology transfer agreement enabling you to cover your own devices and components with Bioweb™.



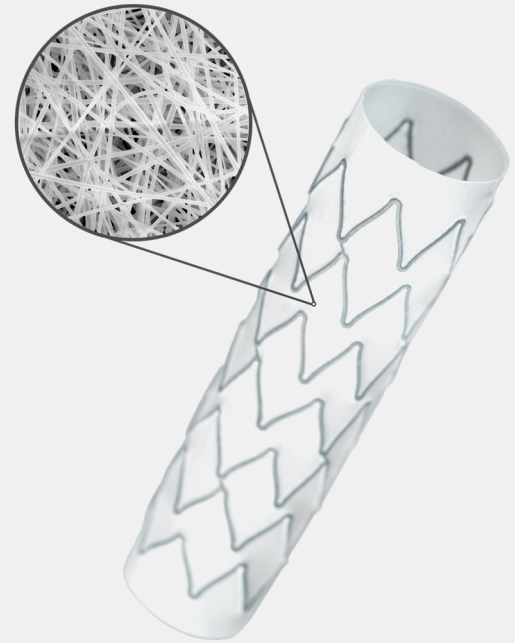
BIOCOMPATIBLE



CHEMICALLY INERT



FLEXURAL MODULUS



Stent shown covered with Bioweb™. Ask about Bioweb™ PTFE/PU composite membranes via a technology transfer agreement.

APPLICATIONS

- Low-profile encapsulation of stents
- Implantable structures in the body
- Cardio valves and patches
- Septal occluders

AVAILABLE PRODUCTS

- Electrospun membrane
- Encapsulated prototype stents
- Encapsulation technology

KEY PROPERTIES

- Biocompatible PTFE/PU materials
- Microporous
- Isotropic mechanical properties
- Sterilizable (ETO)
- Low temperature bonding (266 °F / 130 °C)
- Non-reactive



Bioweb™

All Bioweb™ PTFE/PU composite membranes are produced based on customer specifications and the charts below are a general capability guide.

Capabilities		
	in	mm
Width	Up to 14" (+/- 0.500")	355.6 mm (+/- 12.7 mm)
Length	Min 24" (longer lengths available)	609.6 mm (longer lengths available)
Thickness	0.002" - 0.005" (REF)	0.051 mm - 0.127 mm (REF)

REF = Reference dimensions. For benchmarking only, not intended as part of the product specification.

Basis Weight

PTFE Layer	12.27 g/m ² (+/- 1.45 g/m ²)
PU Layer	3.30 g/m ² (+/- 1.9 g/m ²)

