

viledon[®]

A STRONG DUO

**VILEDON NOVATEXX FOR
MEMBRANES AND FILTER CARTRIDGES**

FREUDENBERG
FILTRATION TECHNOLOGIES

 **FREUDENBERG**
INNOVATING TOGETHER



VILEDON NOVATEXX

MAKING SURE THAT MEMBRANES KEEP THEIR PROMISES

Whether for flat membranes, tubular modules or filter cartridges: with novatexx, Freudenberg Filtration Technologies offers high-quality non-wovens for manufacturing filtration membranes for a variety of filtration and separation tasks.

In many cases, membranes require mechanical reinforcement. Only in this way can they withstand the physical stresses of production, processing and application. Freudenberg provides a large range of nonwovens for this need, some of which are individually developed, which have proven themselves for many years as excellent support and drainage media.

Every application makes different demands on a nonwoven fabric. Our global know-how and our many years of experience are the basis for creating tailor-made solutions at the customer's site. Our expertise and high quality standards ensure maximum safety in sensitive applications. Our customers can rely on optimal performance and consistent certified quality.



Stability guaranteed

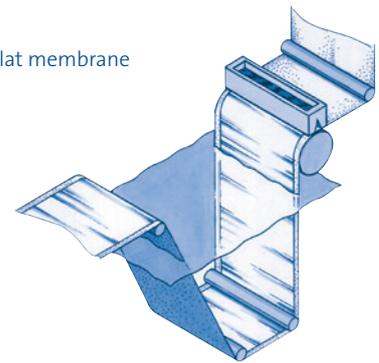
Novatexx nonwovens are available in various polymers and thus impart membranes with the necessary stability. Whether polyester or polyolefin, the right material is determined by the chemical and physical conditions of the respective application. Legal guidelines, as for example in the food industry, are of central importance for the selection of raw materials.

The novatexx portfolio includes very thin nonwovens used in the manufacture of integrally reinforced membranes. The use of bi-component fibers also enables lamination with non-reinforced membranes, such as PTFE-based.

A perfect connection

Flat membranes for microfiltration, ultrafiltration or reverse osmosis are used in various modular forms: in spiral wound, plate or cassette modules, as well as in the form of die cuts. The membranes are generally so thin and delicate that they can only be produced by directly coating the surface of a substrate. This substrate gives the membrane the necessary strength, from the production process to final application. To produce flawless, high-performance membranes, carrier nonwovens need to have a high degree of uniformity in terms of thickness, porosity and surface properties. In addition, very good fiber integration is necessary to reduce membrane defects.

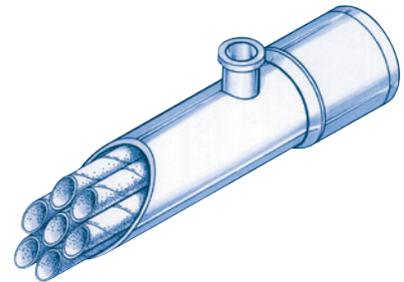
Flat membrane



Only strong as a duo

In the production of tubular membranes, a narrow strip of the support material (nonwoven fabric) is wound into a pipe in a continuous process, ultrasonically welded and coated with the membrane solution. This process and the conditions of use (in particular maximum operating pressure and temperature) require nonwovens with high longitudinal and transverse strength, rigidity and good weldability.

Tubular membrane

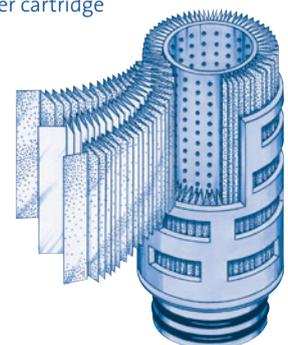


The novatexx program for tubular membranes includes polyester and polyolefin nonwovens with different weights per unit area and different surface structures, which assume the strength or membrane-carrier functions. These nonwovens are complemented by variants with adhesive material, which serve as hot-melt adhesives during lamination with another membrane carrier.

Each pleat counts

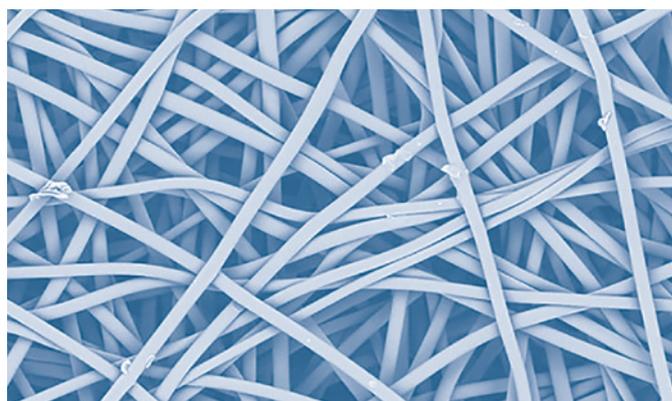
Filter cartridges with pleated membranes can only deliver maximum performance if the entire filter surface can actually be used. This is the task of novatexx spun-bonded nonwovens. They act as “spacers” between the pleats on the upstream side and as a drainage layer on the clean side. The performance profile of the media can be very specifically adapted – for example in terms of weight per unit area, thickness or permeability. In addition, these nonwovens can be easily pleated with the membrane, without damaging it, and then assembled into filters. Freudenberg uses only high-quality raw materials. As a result, novatexx filter media meet all applicable safety requirements for use in the food, medical and pharmaceutical sectors.

Pleated filter cartridge



Your benefits at a glance

- 100% food-grade raw materials
- Designed for the diversified needs of membrane filtration
- Experience in the requirements of membrane production, built up over many years
- Customized assembly
- High product safety and long product cycles thanks to permanent monitoring of the raw materials chain



SEM image of a high-performance filter medium

Always the right choice

Freudenberg provides solutions for all requirements in terms of the various applications of different manufacturing technologies:

- Spunbonded nonwovens
- Dry-laid nonwovens
- Wet-laid nonwovens

