# Sefar Medical Applications

In healthcare technology quality, reliability and innovation are crucial success factors. Sefar offers a wide range of precision meshes and highly functional membranes for use in medical technology as well as implants or diagnostic devices in patients.

## Product Features

### Fabricated components made of SEFAR MEDIFAB® and SEFAR MEDITEX®

Sefar converts its monofilament filtration products MEDIFAB® and MEDITEX® into a range of component pieces for the healthcare industry. The high precision fabrics are used as filtration, protection or drainage media in applications such as perfusion, cardiopulmonary filtration, diagnostics, and biopsies, as well as in eye surgery, air filtration, embolic protection, composite filters for bacteria and viruses (with additional nano-membranes), and fat filtration for cosmetic procedures. In all of these, monofilament fabrics provide the best results by following a well-controlled development and manufacturing process to reach the specific requirements of the end application.

### Technology Service

A global team of Sefar experts supports the R & D departments of customers worldwide.
Sefar has the experience, know-how and corresponding production capabilities for a wide range of materials (PET, PA, PP and PEEK). Efficient development of innovative and

### Laboratory Service

Well-trained staff and high level equipment enable flawless testing:

- bacterial endotoxin and hemolysis

### DOWNLOADS

Implants: How to effectively match textile properties to implant application (PDF 406 kb)

Woundcare: 3-layer wound dressing with substrate carrier (PDF 402 kb)

Woundcare: Negative Pressure Wound Therapy (PDF 691 kb)

Woundcare: Fabrics for advanced woundcare solutions (PDF 1466 kb)

Diagnostics: Advanced Functional Coatings of Technical Fabrics for Medical Applications (PDF 294 kb)

Service: Converted parts made of medical fabric (PDF 1004 kb)

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sustainable solutions – like pleated elements for an efficient filtration surface, laser-cut fabric parts for precision instruments or ultrasonic-welded shapes.

- (LAL/Hemo)
- bioburden
- slurry and particle analyses
- filter media comparison
- filter media analysis and recommendation
- microscopy analysis
- pore size and pore size distribution
- tensile strength, abrasion
- chemical material analysis
- compatibility tests

## Applications

### Implants

SEFAR MEDIFAB® is a woven precision fabric based on synthetic yarn and provides all the necessary certificates and evidence for use in the implant sector. The product line is biocompatible and meets the requirements of USP VI. The production processes are monitored according to ISO 13485 to provide safety and minimise customer risk, while the customer benefits from a simpler approval of their products in the medical market, consequently saving them time and money. A team of Sefar experts supports in the development of these high-precision products.

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## Microfiltration Membrane

SEFAR MEDITEX® PORE products are characterized by their very small pore size, high airflow and ability to withstand a high head of water. High mechanical resistance together with unsurpassed protection against contamination allows use in a wide range of medical devices.

## Woundcare

The use of fabrics in the advanced wound care management shows clear advantages compared to the conventionally used nonwoven materials. Fabrics have inherently smooth and regular surfaces. The materials are thin (<100 µm) and perfectly transparent. They allow rapid and controlled transfer of exudates. At the same time they do not absorb humidity and maintain a moist wound environment. The production of most precise mesh openings with defined surface characteristics and within strict biological specifications is a prerequisite for wound care applications.

## Perfusion Filter

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All the aspects of form and functionality of SEFAR MEDIFAB® fabric in blood filters are characterized by its unsurpassable filter efficiency, well-defined surface properties and high flexibility. High flow rates, precise mesh sizes and the proven biocompatibility of the Sefar fabrics contribute to the excellent reliability and performance of the safety filters, which include, for example, those used in open heart surgery. Whether used as filter in cardiotomy reservoir, as a pleated filter having a large surface area in arterial filters or as a safety filter in an oxygenator, SEFAR MEDIFAB® guarantees high filtration efficiency and highest quality.

## Infusion Set

SEFAR MEDIFAB® fabric having a mesh aperture of < 20 µm ensures that during an infusion no foreign particles enter the patient's bloodstream. We offer tapes, tubes and bags. The infusion filters serve as safety filters. The function assures the retention of particles (ISO 8536-4). The source of such particles can be the infusion bottle, infusion bag or infusion solution, for example, aggregated nutrients or pharmaceutical compounds.
SEFAR MEDITEX® PORE membranes are used to ventilate infusion systems. The construction of the membrane guarantees a high air permeability while preventing the ingress of viruses and bacteria as well as the escape of liquids.

## Diagnostics test strips

The SEFAR MEDITEX® line offers a range of solutions for healthcare providers with

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properties including hydrophilic surfaces (HPL), specific colours (COL), multiple layers (ACC), or structures such as knitted fabrics (KNT), with all functional and biocompatible properties tailored according to the customer's requirements. SEFAR MEDITEX® HPL has been designed with a homogeneous structure and hydrophilic surface to guarantee a rapid and even distribution of the sample medium (i.e. blood, urine), allowing for maximum flexibility in the design of test strips and guaranteeing accurate and reproducible test results.

## Spreading

The precisely woven structure and hydrophilic surfaces of Sefar fabrics guarantee fast wicking and excel lateral flow – even with very small fluid volumes.

SWISS MEDTECH

Member

https://www.swiss-medtech.ch/

## Locations

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