

# TeknoPure-B Polyethersulfone Pleated Filter Cartridge



**TEKNOPURE**

An Absolute Filter with Long Service Time and High Flow Rate



## Specifications

### » Materials of Construction

Filter membrane	Polyethersulfone
Supports	Polypropylene
Cage/End Caps	Polypropylene
Core	Polypropylene/SS 316L
Adaptor	Polypropylene
O-rings	Please refer to the ordering info

### » Filter Dimensions

Outer Diameter	68.0mm
Inner Diameter	33.0mm
Filtration Area	0.65m <sup>2</sup> /10inch

### » Safety

Bacterial Endotoxin	≤0.25EU/mL
Extractable	≤40mg/10inch

### » Operating Parameters

Maximum Operating Temperature	80°C
Maximum Differential Pressure (Forward)	5.2bar@25°C
Maximum Differential Pressure (Reverse)	2.1bar@25°C

### » Sterilizable

Autoclave	124°C,30min, 30cycles
	134°C,20min, 30cycles
Steam In-Place	124°C,30min, 30cycles
	134°C,20min, 30cycles

## Description

Asymmetric Polyethersulfone membrane has advantages on high-flux and high capacity.

Due to reasonable structure, TeknoPure makes full use of those advantages. TeknoPure provide better performance compared to similar products, while ensuring low cost.

### » Reliability

From raw materials purchase, transport and storage to production, all operations follow ISO 9001 quality management system. TeknoPure-B manufactured, tested and packaged in a cleanroom to ensure product cleanliness. they go out. A validation guide for compliance with regulatory requirements is available.

### » Compatibility

TeknoPure-B cartridge filters are sealed using thermal bonding process, contain no adhesive and surfactant. The components of TeknoPure, include of Polyethersulfone, Polypropylene and Silicone/EPDM, provide broad chemical compatibility from pH 1 to pH14 and low extractable levels at high temperature.

### » Economy

The Optimized structure of cartridge filters can take full advantage of the excellent performance of asymmetric PES membrane. These features ensure the highest process efficiency and minimize filtration costs.

### » Regulatory Compliance

FDA 21 CFR 177  
ISO 10993-Part 1, 5  
USP Class VI-121 °C  
Regulation (EC) No 1935/2004

## Features

- Strong chemical compatibility
- High flux, low protein binding
- Proven sterilizing-grade filter cartridge
- Ultra-low dissolved/precipitated materials

## Application

- Sterilization filtration of water for injection, cleaning solutions, purified water, deionized water, etc.
- Sterilization filtration of LVP, APIs, buffers, eye drops, disinfectants, etc.
- Sterilization filtration of vaccines, serums, biological products, antibiotic water-based liquid, etc.
- Filtration of red wine, beer, juice, purified water, etc.

## Suitable for Severe High Temperature Sterilizing

TeknoPure-B ensure integrity at temperature up to 134°C and pressure drop up to 0.5bar due to the high strength of Polyethersulfone membrane and enhanced Polypropylene structure. TeknoPure-B can provide excellent filtration service for your process.

For applications requiring autoclaving and sterilization, recommends the use of Code 5 adaptor to ensure filter sealing after cooling. Cartridges should be cooled to system operating temperature prior to use.

# Integrity Testing

## » Integrity Test Data

Pore Size	Bubble Point	Diffusion
0.10µm	≥4.0bar	≤18ml/min@3.2bar
0.20µm	≥3.3bar	≤18ml/min@2.6bar
0.45µm	≥1.8bar	≤18ml/min@1.4bar <sup>1)</sup>
0.65µm	≥1.2bar	≤18ml/min@1.0bar <sup>1)</sup>
0.80µm	≥1.0bar	≤18ml/min@0.8bar

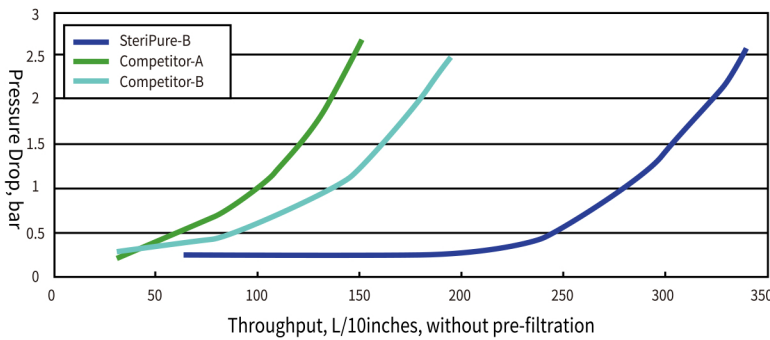
Test filter cartridge length 10 inches

## » Integrity Testing Conditions

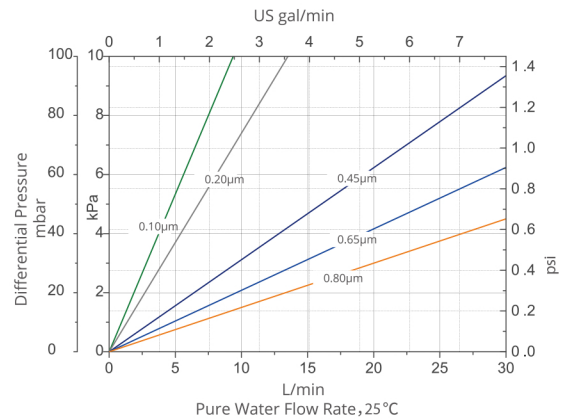
Wetting Liquid	Pure Water
Test Gas	Compressed Air
Test Ambient Temperature	25±2°C

## Lower Costs and Longer Service Time

TeknoPure-B cartridge filters are optimized to slow down the velocity of flow rate decline and increase the particle and colloid capacity on the membrane surface. TeknoPure-B can effectively reduce the operating costs of filtration system, the cost of replacement filters and downtime in many applications.



## Typical Liquid Flow Rates



(Water / 1cP fluid)

Typical flow rates. For liquids with viscosity differing from water, multiply the pressure drop by the viscosity in centipoise.

Unit conversion: 1 bar = 100 kPa = 14.5 psi

## Ordering Information<sup>1)</sup>

Part Number: TPB (L) (R) (A) (S) (C)

Filter Media	Length (L)	Removal Rating <sup>2)</sup> (R)	Adaptor (A)	Sealing (S)	Core (C)
Polyethersulfone membrane	005 = 5inch 010 = 10inch 020 = 20inch 030 = 30inch 040 = 40inch	010 = 0.10µm 020 = 0.20µm 045 = 0.45µm 065 = 0.65µm 080 = 0.80µm	0=DOE 1=222/Flat with SS insert 2=222/Flat 3=222/Fin 4=222/Fin with SS insert 5=226/Fin with SS insert 6=226/Fin 7=226/Flat 8=226/Flat with SS insert	S=Silicone E=EPDM N=NBR F=FKM	Blank=PP R=GF Reinforced PP S=316L Stainless Steel

<sup>1)</sup> This information is a guide to the part number structure and possible options. For applications requiring autoclaving and sterilization, Teknopure recommends the use of adaptor with SS insert to ensure filter sealing after cooling. For availability of specific options, please contact us.

<sup>2)</sup> Double layer membrane non-standard combinations can be made according to customer needs.