

PureFlo® PES Filter Capsules

Encapsulated Pharmaceutical grade PES membrane filter

The PureFlo® PES filter capsule in its all-polypropylene construction provides excellent chemical compatibility and superior flow per unit surface area as compared to other membrane capsules. PureFlo® PES Filter Capsules have been specially designed for sterilizing in biopharmaceutical applications. Its hydrophilic PES membrane does not require pre-wetting agents, thereby eliminating a potential source of contamination. The PES membrane is also low protein binding.

The capsules were designed for simple and efficient filtration of small to medium volumes used in low flow application, laboratory, and pilot runs. No adhesives, binders, or surfactants are used in the manufacturing process of these capsules. They are rinsed with pyrogen free water to reduce extractables and downtime. All filter capsules are 100% integrity tested to ensure filter performance each and every time out of the package. PureFlo PES filter capsules are well suited for Pharmaceutical applications where superior flow and bacterial retention is required. The capsule can be ordered pre sterilized.



SPECIFICATIONS

Regulatory Compliance

Manufactured from materials that conform to the requirements of 21CFR Part 177 of the U.S. Code of Federal Regulations and USP Class VI Biological test for Plastics

Bacterial Retention

Complete retention of $\geq 10^7$ organisms/cm² of *Brevundimonas diminuta* in accordance with the current HIMA challenge methodology (ASTM F838-83). Validation Guide upon request.

Autoclavable & Sanitizable

Capsules can be autoclaved up to 6 times @126°C for 60 minutes or chemically sanitized in place using common sanitizing agents such as hot water @ 90°C for a limited time (dependent on time and temperature).

Water Bubble Point Specification

0.1um : 23psi, 0.16 MPA (IPA)
0.2um : 47psi, 0.32 MPa

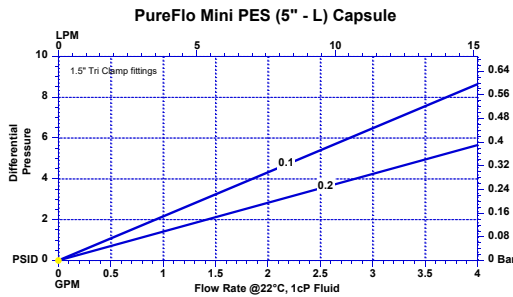
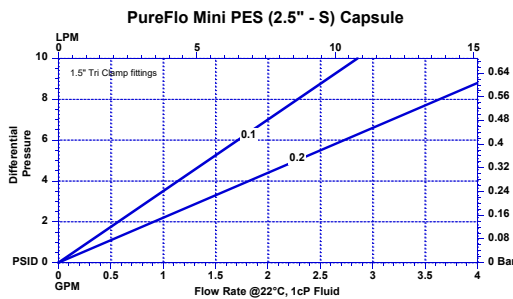
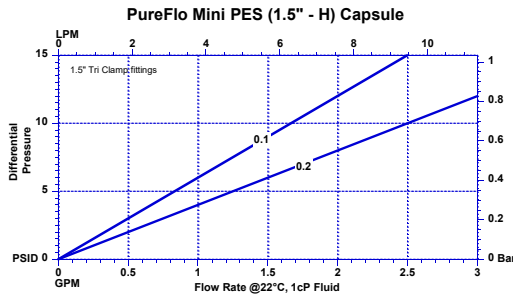
Bacterial Endotoxin

Effluent is non-Pyrogenic per USP Bacterial Endotoxin (0.25 EU/ml), determined using Limulus Amebocyte Lysate (LAL) test.

Applications	
Culture media	Fermentation Broths
Serums	SVP (Small volume parenterals)
Vaccines	Product Sterilization
Reagents & Buffers	Biologics
Antibiotics	Beverages
WFI-POU	Scale up processes

Features	Benefits
<ul style="list-style-type: none"> ■ Hydrophilic PES Membrane 	<ul style="list-style-type: none"> ■ Inherently hydrophilic for cleaner filtrates ■ High flow rate reduces processing time ■ Low Protein-binding membrane maximizing yields ■ Biologically inert membrane ■ Bacterial Retentive to produce sterile solutions
<ul style="list-style-type: none"> ■ Small Compact Design 	<ul style="list-style-type: none"> ■ Simple, quick, and efficient filtration ■ Low hold-up volume reduces product waste
<ul style="list-style-type: none"> ■ Low Filter Extractables 	<ul style="list-style-type: none"> ■ No adhesives, binders, or surfactants are used during manufacturing resulting in superior downstream cleanliness ■ All capsules are rinsed with pyrogen free water

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Note - Graphs based on Sanitary fittings.

Materials of Construction

Membrane: Hydrophilic Polyethersulfone
 Membrane Supports: Polypropylene, or PET option
 Cage, Core, End Caps: Polypropylene, or Polyethylene option

Fitting Connections

NPT, Sanitary Flange, Hose Barb, Coupling
 Vent/Drain - Luer Lock with Cap

Dimensions (TC fittings)

Length: 1.5 in (128 mm)
 Length: 2.5 in (155 mm)
 Length: 5.0 in (210 mm)
 Length: 10 in (340mm)
 Diameter: 2.75 in (70 mm)

Effective Filtration Area

1.5 in - 0.65 ft² (600 cm²)
 2.5 in - 1.3 ft² (1200 cm²)
 5.0 in - 2.7 ft² (2400 cm²)
 10 in - 5.2 ft² (4800 cm²)

Operating Conditions

Maximum Forward Differential Pressure:
 73 psid (5.0 bar) at 20°C
 36 psid (2.5 bar) at 50°C
 17 psid (1.2 bar) at 80°C
 Maximum Reverse Differential Pressure:
 44 psid (3.0 bar) at 20°C
 Maximum Operating Temperature: 80°C

PureFlo PES Filter Capsule (Pharmaceutical grade) Ordering Guide

PureFlo Capsule Filters	Filter Media	Pore size (Micron)	Length	Input Fitting	Output Fitting	Options
SKL	S = PES	010 = 0.1um 020 = 0.2um	H = 1.5" S = 2.5" L = 5" K = 10"	1H = 1/8" Hose barbs 1NF = 1/8" FNPT 2H = 1/4" to 1/2" Hose barbs 2HS = 1/4" to 3/8" Hose barbs 2L = Large Female Luer Lock fitting 2N = 1/4" MNPT 2NF = 1/4" FNPT 2Q = 1/4" Male Quick Coupling for Metal latch 2QF = 1/4" Female Quick Coupling with Metal latch 2QFP = 1/4" Female Quick Coupling with Plastic latch 2QP = 1/4" Male Quick Coupling for Plastic latch 3H = 3/8" Hose Barb 3HE = 3/8" Hose Barb Elbow 3NF = 3/8" FNPT 4H = 1/2" Hose Barb 4N = 1/2" MNPT 4QP = 1/2" Male Quick Coupling for Plastic latch MT = 1/2" Tri clamp TC = 1-1/2" Tri clamp	1H = 1/8" Hose barbs 1NF = 1/8" FNPT 2H = 1/4" to 1/2" Hose barbs 2HS = 1/4" to 3/8" Hose barbs 2L = Large Female Luer Lock fitting 2N = 1/4" MNPT 2NF = 1/4" FNPT 2Q = 1/4" Male Quick Coupling for Metal latch 2QF = 1/4" Female Quick Coupling with Metal latch 2QFP = 1/4" Female Quick Coupling with Plastic latch 2QP = 1/4" Male Quick Coupling for Plastic latch 3H = 3/8" Hose Barb 3HE = 3/8" Hose Barb Elbow 3NF = 3/8" FNPT 4H = 1/2" Hose Barb 4N = 1/2" MNPT 4QP = 1/2" Male Quick Coupling for Plastic latch MT = 1/2" Tri clamp TC = 1-1/2" Tri clamp	-PH = Pharma grade -E = Polyethylene Shell and PET media support for Gamma Sterilization -N = No vent or Drain fittings -NI = No vent or Drain inlet fitting -NO = No vent or Drain Outlet fitting

Example - 2.5", 0.2 micron PES Capsule, with 1.5" TriClamp fittings would be SKLS020STCTC-PH

Male Quick Couplings are molded, Female Quick Coupling with Plastic latch only will be threaded on, compatible with CPC (Colder), LinkTech and other compatible couplings.

Your Local Distributor:

PHARMBIOLOGIC SOLUTIONS

P*317-415-0179
 F*317-536-3937

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