

PureFlo® PES Capsules

(High Performance Encapsulated Pharmaceutical Grade PES Filter)

The PureFlo® PES filter capsule in its all-polypropylene construction provides excellent chemical compatibility and superior flow per unit 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 low protein-binding.

The capsules were designed for simple and efficient filtration of small 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.



Regulatory Compliance:

Manufactured from materials that conform to the requirements of 21 CFR 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 25 times at 125 °C (257 °F) for 30 minutes or chemically sanitized in situ using common sanitizing agents or hot water at 90 °C (194 °F) for a limited time (dependent on time and temperature). Capsules must not be in situ steam-sterilized.

Water Bubble Point Specification:

0.1 µm : 23 psi (0.16 MPa) in IPA
0.2 µm : 47 psi (0.32 MPa)

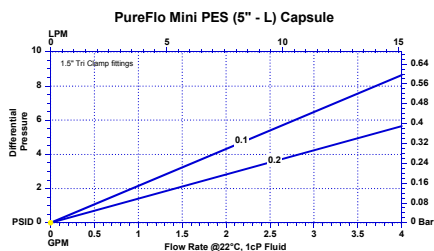
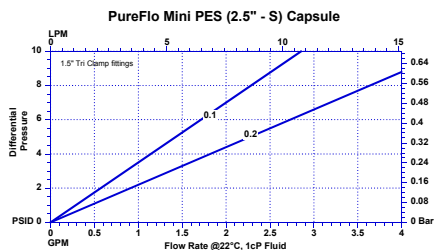
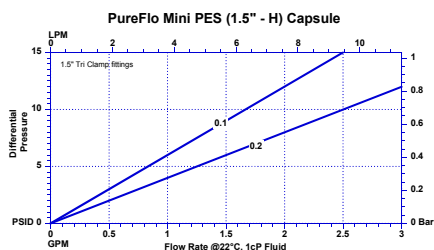
Bacterial Endotoxin:

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

PureFlo® PES Capsules



Note - Graphs based on Sanitary fittings.

PureFlo® PES Capsule (Pharmaceutical grade) Ordering Guide

PureFlo Capsule Filters	Vent & Drain Fitting	Filter Media	Pore size (Micron)	Length	Input Fitting	Output Fitting	Options
SK 70mm Diameter Capsule	L = Female Luer Lock P = M8 Threaded Plug - Limited options	S = PES	004 = 0.04um	H = 1.5"	1C	1C = 1/8" Compression	Grade -PH = Pharma Grade Shell Material Blank = Polypropylene -GP = Gamma stable polypropylene shell -NY = Nylon Construction -E = Polyethylene shell and HDPE media support for gamma sterilization Vent & Drain -NI = No vent or drain Inlet fitting -NO = NO vent or drain Outlet fitting -N = No vent or drain fittings Sterilization -ETO = Ethylene oxide sterilization
			010 = 0.1um	S = 2.5"	1H	1H = 1/8" Hose barbs	
			020 = 0.2um	L = 5"	1N	1N = 1/8" MNPT	
			050 = 0.45um	E = 7.5"	1NF	1NF = 1/8" FNPT	
			065 = 0.65um	K = 10"	1Q	1Q = 1/8" Male Quick Coupling with Metal latch	
			080 = 0.8um		1QF	1QF = 1/8" Female Quick Coupling with Metal latch	
			120 = 1.2um		1QFV	1QFV = 1/8" Female Valved Quick Coupling with Metal latch	
					1QV	1QV = 1/8" Male Valved Quick Coupling with Metal latch	
					2H	2H = 1/4" to 1/2" Hose barbs	
					2HS	2HS = 1/4" to 3/8" Hose barbs	
					2LF	2LF = Large Female Luer Lock fitting	Preilters -G(pore Size) = Glass Fiber PreFilter -P(pore Size) = PolyPro Media PreFilter -S(pore Size) = PES PreFilter
					2N	2N = 1/4" MNPT	
					2NF	2NF = 1/4" FNPT	
					2P	2P = 1/4" Push to Connect	
					2PE	2PE = 1/4" Push to Connect Elbow	
					2Q	2Q = 1/4" Male Quick Coupling for Metal latch	
					2QF	2QF = 1/4" Female Quick Coupling with Metal latch	
					2QFV	2QFV = 1/4" Female Valved Quick Coupling with Metal latch	
					2QV	2QV = 1/4" Male Quick Coupling for Plastic latch	
					2QV	2QV = 1/4" Male Valved Quick Coupling with Metal latch	
					2V	2V = 1/4" Walther Quick Connect	Options -O-Ring for Quick Coupling -OE = O-ring EPDM -ON = O-ring Nitrile -OV = O-ring Viton Blank = O-ring Silicon (Standard)
					3H	3H = 3/8" Hose Barb	
					3HE	3HE = 3/8" Hose Barb Elbow	
					3H-FB	3H-FB = 3/8" Hose Barb with filling bell or -FC with Cap	
					3NF	3NF = 3/8" FNPT	
					4H	4H = 1/2" Hose Barb	
					4N	4N = 1/2" MNPT	
					4Q	4Q = 1/2" Male Quick Coupling for Plastic latch	
					MT	MT = 1/2" Tri clamps	
					TC	TC = 1-1/2" Tri clamp	
					TS	TS = Shower Head	

Example - Capsule, Luer Lock V/D, 2.5" Internal filter, 0.2 micron PES Capsule, Pharma Grade, with 1.5" Tri-Clamp fittings would be SKLS020STCTC-PH

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

Your Local Distributor:

ZenPure

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