

SZL Series Nylon Capsules

Pharmaceutical Grade

The PureFlo® SZL Series Nylon filter capsule is designed for improved wettability in processes which require critical integrity validation testing. The unit provides excellent compatibility and superior flow per unit area as compared to other membrane capsules. The PureFlo® Nylon filter capsules have been specially designed for sterilizing in biopharmaceutical applications where bacterial retention is required. The hydrophilic nylon membrane does not require pre-wetting agents, thereby eliminating a potential source of contamination. The nylon membrane is a low protein-binding media to improve your process.

The capsules were specifically designed with an easy-to-wet-out structure of nylon membrane, polyester (PET) support and internal nylon end caps. The units have luer lock plugs for the vent & drain for simple and efficient evacuation of air and liquid. The units are used for filtration of small to medium volumes of fluid for processing in production, 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 speed production. All filter capsules are 100% integrity-tested to ensure filter performance each and every time out of the package. The capsule can be ordered pre-sterilized.



Specifications

Materials of Construction: Membrane	Membrane: Nylon 6,6 Supports: PET (Polyester) Shell, Cage, Core: Polypropylene ; End Caps: Nylon Push to Connect Fitting: Acetal-body, EPDM-O-Ring, 304 SS Grip Ring
Fitting Connections:	See ordering guide for the availability. Any inlet/outlet combinations. (Custom adaptors available upon request)
Nominal Dimensions:	Lengths: 1.5 in (38 mm), 2.5 in (63.5 mm), 5.0 in (127 mm), 7.5 in (191 mm), 10 in (254 mm) Diameter: 2.88 in (73 mm)
Effective Filtration Area:	1.5 in: 0.74 ft ² (690 cm ²), 2.5 in: 1.4 ft ² (1300 cm ²), 5.0 in: 2.6 ft ² (2420 cm ²), 7.5 in: 4.0 ft ² (3720 cm ²), 10 in: 5.3 ft ² (4920 cm ²)
Operating Conditions:	Maximum Working Pressure: Liquid: 5.5 bar (80 psi) at 22 °C Gas: 4.1 bar (59.5 psi) at 22 °C Minimum Burst Pressure: 8.3 bar (120 psi) at 25 °C Maximum Forward Differential Pressure: 5 bar (72.5 psi) at 22 °C Maximum Reverse Differential Pressure: 3.0 bar (43.5 psi) at 22°C Maximum Operating Temperature: PP & Gamma PP: 80 °C HDPE: 60 °C
Regulatory Compliance:	The filters are constructed with polypropylene resins and filtration media in compliance with 21 CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastic.

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Specifications (cont.)

Bacterial Retention:

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

Autoclavable & Sanitizable:

Capsules can be autoclaved 5 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.

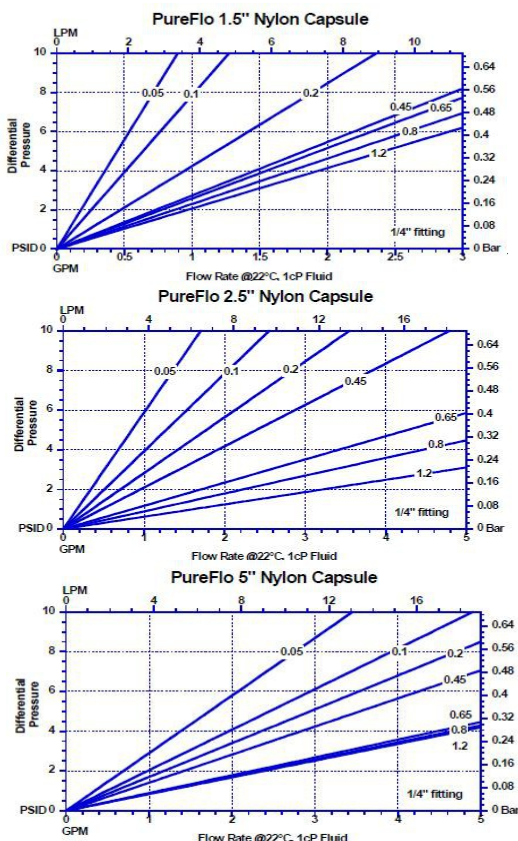
Water Bubble Point Specification:

0.1 µm: 23 psi (0.16 MPa) in IPA
0.2 µm: 50 psi (0.35 MPa)

Bacterial Endotoxin:

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

PureFlo SZL Series Nylon Capsule (Pharmaceutical grade) Ordering Guide



PureFlo Capsule Filters	Vent & Drain Fitting	Filter Media	Pore size (Micron)	Length	Input Fitting	Output Fitting	Options	
SZ	L = Female Luer Lock	N = Nylon	005 = 0.05	H = 1.5"	1C 1C	= 1/8" Compression	Grade	O-Ring for Quick
	010 = 0.10		S = 2.5"	1H 1H	= 1/8" Hose barbs	-PH = Pharma Grade	-OE = O-ring EPDM	
PP Shell & Nylon end-caps	P = M8 Threaded Plug		020 = 0.20	L = 5"	1N 1N	= 1/8" MNPT	Shell Material	-ON = O-ring Nitrile
	Limited options		045 = 0.45	E = 7.5"	1NF 1NF	= 1/8" FNPT	Blank = Gamma stable polypropylene	-OV = O-ring Viton
Polyester support			065 = 0.65	K = 10"	1Q 1Q	= 1/8" Male Quick Coupling with Metal latch	-NY = Nylon Construction	Blank = O-ring Silicon (Standard)
Polypropylene Cage & Core			080 = 0.80		1QF 1QF	= 1/8" Female Quick Coupling with Metal latch		Prefilters
			120 = 1.20		1QFV 1QFV	= 1/8" Female Valved Quick Coupling with Metal latch	-E = Polyethylene shell and HDPE media support for gamma sterilization	-G(pore Size)= Glass Fiber PreFilter
Internal Silicone O-ring					1QV 1QV	= 1/8" Male Valved Quick Coupling with Metal latch		-P(pore Size)= PolyPro Media PreFilter
					2H 2H	= 1/4" to 1/2" Hose barbs	-NI = No vent or drain Inlet fitting	-S(pore Size) = PES PreFilter
70mm Diameter Capsule with Bleed Valve					2HS 2HS	= 1/4" to 3/8" Hose barbs	-NO = NO vent or drain Outlet fitting	
					2LF 2LF	= Large Female Luer Lock fitting	-N = No vent or drain fittings	Sterilization
					2N 2N	= 1/4" MNPT	-ETO = Ethylene oxide sterilization	
					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		
					2QFP 2QFP	= 1/4" Female Quick Coupling with Plastic latch		
					2QFV 2QFV	= 1/4" Female Valved Quick Coupling with Metal latch		
					2QP 2QP	= 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		
					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 - 0.2um PES Pharma Grade, Luer Lock Vent/Drain, 1.5" Internal filter, 1/4" MNPT I/O is SZLS020H2N2N-PH								

Quick Connections are available. Example Quick Connections with Bleedin

latch will be threaded on. [See our B/CBC Catalog](#). Link Tech and other

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