

PureFlo® Z-Series Mini Capsule Filters

PureFlo® Z-Series Mini Capsule Filters are gamma-stable and ideally suited for integration into single-use applications. These filter capsules feature an asymmetric hydrophilic PES membrane that demonstrates exceptional capacity and flow performance in liquid applications. The Z-Series Mini capsule filters offer small- to mid-scale filtration in a variety of applications in the biopharmaceutical industry. The Z-Series product family has been designed for easy pre- and post-use integrity testing, assuring easy wetting for quick and accurate integrity test results.

The compact design and available inlet and outlet fittings allow efficient integration of Z-Series Mini Capsules Filters into a wide range of single-use systems. Z-Series Disc Capsule Filters provide biopharmaceutical manufacturers with a filtration solution configured to meet their process needs.

Typical Uses	
Applications	Process Fluids*
Prefiltration Bioburden Reduction Sterile Filtration	WFI Buffer Cell culture medium Bulk drug substance Final drug product

*Chemical compatibility information available upon request.

Materials of Construction	Media: Polyethersulfone (PES) Media Supports: Polyester Cage, Core, and Shell: Polypropylene End Caps: Nylon O-Rings: Silicone
Fitting Connections	See ordering guide for availability. (Custom adaptors available upon request)
Nominal Dimensions	Body Length: 60 mm (2.3") Diameter: 60 mm (2.3")
Effective Filtration Area	Available from 200 cm ² - 500 cm ² (0.22 ft ² - 0.54 ft ²) see ordering guide for detail.
Operating Conditions	Maximum Operating Pressure Liquid: 5.5 bar (80 psi) at 22°C (72°F)
	Maximum Forward Differential Pressure 5 bar (72 psi) at 22°C (72°F)
	Maximum Reverse Differential Pressure 2.1 bar (30 psi) at 22°C (72°F)
	Maximum Operating Temperature 80°C (176°F)
Integrity Testing*	0.1 µm (see ordering guide for grades) 60% isopropyl alcohol bubble point ≥ 1.6 bar (23 psi) using air at 22°C
	0.2 µm (see ordering guide for grades) Water bubble point ≥ 3.5 bar (50 psi) using air at 22°C
USP Class VI	All components or raw materials used in this product conform to the requirements of USP Class VI Biological Reactivity Tests for Plastics.
USP Cleanliness	Effluent from this product meets the requirements for a "non-fiber releasing" filter as defined by 21 CFR 210.3 (b) (6) and the harmonized requirements set forth by the USP <788>, EP, and JP for Particulate Matter in Injections.
Bacterial Endotoxins	An aqueous extraction of this product contains <0.25 EU/ml as determined by the Limulus Amebocyte Lysate (LAL) Test.
Bacterial Retention	0.1 µm and 0.2 µm grades are quantitatively retentive towards <i>Brevundimonas diminuta</i> (ATCC #19146) at a minimum challenge level of 10 ⁷ CFU per cm ² of filtration area, consistent with ASTM F838-05.
Sterilization	This product can be autoclaved up to 25 cycles at 125 °C (257 °F) for 30 minutes. This product is compatible with gamma irradiation up to 50 kGy.

*All filters are 100% integrity tested.

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Filtration Media Grades		
SINGLE LAYER	DUAL LAYER	
PES (S)	PES with built-in (fine) PES prefilter (ZS)	PES with built-in (coarse) PES prefilter (XS)
S004 = 0.04 µm S010 = 0.1 µm S020 = 0.2 µm S045 = 0.45 µm S065 = 0.65 µm S080 = 0.8 µm S120 = 1.2 µm	ZS010 = 0.1 µm ZS020 = 0.2 µm ZS045 = 0.45 µm	XS010 = 0.1 µm XS020 = 0.2 µm

Uniform particle size distribution

Wide particle size distribution

Lowest contaminant load

Highest contaminant load

PureFlo Z-Series Mini Capsule	Filter Media Grade	Nominal Filtration Area	Inlet Fitting	Outlet Fitting	Options
MZP = Z-Series Mini Capsule	Select from Filtration Media Grades (above)	A= 200 cm ² B= 300 cm ² C= 400 cm ² D= 500 cm ²	1H 1Q 1QF 2H 2Q 2QP 2QF 3H 5H LF LM MT BH	1H = 1/8" hose barb 1Q = 1/8" male quick coupling 1QF = 1/8" female quick coupling with metal latch 2H = 1/4" hose barb 2H-FB = 1/4" hose barb with filling bell 2H-FC = 1/4" hose barb with filling bell with cap 2Q = 1/4" male quick coupling 2QP = 1/4" male quick coupling (for plastic latch) 2QF = 1/4" female quick coupling with metal latch 3H = 3/8" hose barb 5H = 9/16" hose barb LF = female Luer lock LM = male Luer lock MT = 1/2" tri-clamp BH = 3/16" hose barb	Vent & Drain - N = No vent/drain - NI = No vent/drain near inlet - NO = No vent/drain near outlet (Leave blank for one vent/drain near inlet and one vent/drain near outlet)

Example: MZPZS020ALMLM (Z-Series Mini Capsule, 0.2 µm PES final membrane with built-in (fine) PES prefilter, 200 cm², male luer lock inlet/outlet)

Custom adapters are available upon request.



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