

# 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 Capsule 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<br>Bioburden Reduction<br>Sterile Filtration | WFI<br>Buffer<br>Cell culture medium<br>Bulk drug substance<br>Final drug product |

\*Chemical compatibility information available upon request.

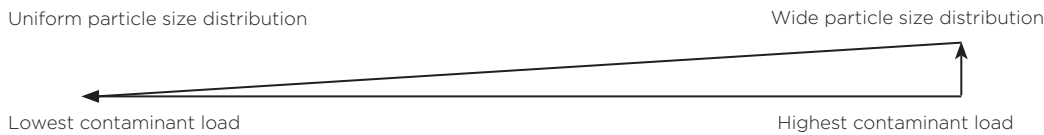
|                                  |  |   |
|----------------------------------|--|---|
| <b>Materials of Construction</b> | Media: Polyethersulfone (PES)<br>Media Supports: Polyester<br>Cage, Core, and Shell: Polypropylene<br>End Caps: Nylon<br>O-Rings: Silicone   |   |
| <b>Fitting Connections</b>       | See ordering guide for availability. (Custom adaptors available upon request)  |   |
| <b>Nominal Dimensions</b>        | Body Length: 60 mm (2.3") Diameter: 60 mm (2.3")   |   |
| <b>Effective Filtration Area</b> | Available from 200 cm <sup>2</sup> - 500 cm <sup>2</sup> (0.22 ft <sup>2</sup> - 0.54 ft <sup>2</sup> ) see ordering guide for detail.   |   |
| <b>Operating Conditions</b>      | 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)  |
| <b>Integrity Testing*</b>        | 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                 |
| <b>USP Class VI</b>              | All components or raw materials used in this product conform to the requirements of USP Class VI Biological Reactivity Tests for Plastics.   |   |
| <b>USP Cleanliness</b>           | 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. |   |
| <b>Bacterial Endotoxins</b>      | An aqueous extraction of this product contains <0.25 EU/ml as determined by the Limulus Amebocyte Lysate (LAL) Test.   |   |
| <b>Bacterial Retention</b>       | 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 <sup>7</sup> CFU per cm <sup>2</sup> of filtration area, consistent with ASTM F838-05.  |   |
| <b>Sterilization</b>             | 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.

# PureFlo® Z-Series Mini Capsule Filters

## PureFlo Z-Series Mini Capsule Filters Ordering Guide

| 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<br>S010 = 0.1 µm<br>S020 = 0.2 µm<br>S045 = 0.45 µm<br>S065 = 0.65 µm<br>S080 = 0.8 µm<br>S120 = 1.2 µm | ZS010 = 0.1 µm<br>ZS020 = 0.2 µm<br>ZS045 = 0.45 µm | XS010 = 0.1 µm<br>XS020 = 0.2 µm              |



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

Custom adapters are available upon request.



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