



Membrane Technologies

# Certificate of Quality

The Hydrophilic PVDF Membrane Capsule filters have been manufactured in a **mdi** facility in compliance with **ISO 9001** regulations using **validated production processes**.

## **AseptiCap WS-γ Hydrophilic PVDF Membrane Capsule Filters**

Catalog No. : LWSX5401EQRX101  
Type : LWS  
Pore Size : 0.2 μm (0.45μm + 0.2μm)  
Lot Number : LV77471 SI.No. 005

### SPECIFICATION

<b>Length</b>	10"
<b>Filter Media</b>	Hydrophilic PVDF Membrane
<b>Drainage Layers</b>	Polyester
<b>Housing</b>	Polypropylene
<b>Differential Pressure</b>	< 4Kg/cm <sup>2</sup> at 30 °C
<b>Maximum Operating Temperature</b>	80 °C @ < 2 Kg/cm <sup>2</sup>
<b>Sterilization</b>	Can be sterilized by Gamma Irradiation upto 50 kGy

### LOT RELEASE CRITERIA

#### 100% Integrity Tested

: The capsule filter has been tested for integrity by Air Diffusion Flow test and Bubble Point test using DI water.  
Diffusion flows with DI water were: ≤ 30 ml/min @ 2.60 kg/cm<sup>2</sup>  
Bubble point value with DI water was: ≥ 50 psi (3.44 Bar)  
The capsule filter is also certified for integrity by Bubble point test using 50% IPA/Water solution.  
Bubble point with 50% IPA/Water solution is ≥ 16 psi (1.10 Bar)

#### Water Flow Rate

: ≥ 20 lpm @ 0.70 Kg/cm<sup>2</sup> @ 27 °C

#### Microbial Challenge Test

: Retains ≥ 10<sup>7</sup> organisms/cm<sup>2</sup> of *B. diminuta* ATCC 19146 challenge as per ASTM F838-05 methodology.

### VALIDATED FOR

#### Autoclavability

: Autoclavable once at 125 °C for 30 minutes after gamma irradiation @ 50 kGy.

#### Extractable

: Within limits as specified in USP.

#### Oxidizable matter

: Passes test as per USP.

#### Bacterial Endotoxins

: Filtrate meets the USP requirements for Sterile WFI of ≤ 0.25 EU/ml as determined by Limulus Amebocyte Lysate (LAL) test.

#### Biosafety

: Passes Biological Reactivity Tests, *In Vivo* for Class VI plastic as described in USP <88>.

#### Cytotoxicity

: Passes Biological Reactivity Tests, *In Vitro* as described in USP <87>.

#### Indirect Food Additives

: Passes as per FDA 21CFR 177.1520(a)1(i).

#### Particle Release

: Passes test as per USP <788>, "Particulate matter in Injections".

#### Fiber Release

: Complies with FDA 21CFR 210.3(b)(6).

### CUSTOMER SUPPORT

**mdi** offers its unique interdisciplinary skills to provide solutions to specific problems. Please contact our factory or the local application specialist.

Head of Quality Assurance

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**An ISO 9001 Company**