

Certificate of Quality

The Polyethersulfone Membrane Cartridge Filters have been manufactured in a **mdi** facility in compliance with **ISO 9001** regulations using **validated production processes**.

AseptiSure HSR PES Membrane Cartridge Filters

Catalog No. : CHR15336E0SS101
 Type : CPHSR
 Pore Size : 0.1 μm (0.2 μm + 0.1 μm)
 Lot Number : CS8894L SI.No. 063
 Manufacturing Date : 2024 - 12
 Expiry Date : 2029 - 12

SPECIFICATION

Length	5"
Filter Media	Polyethersulfone Membrane
Drainage Layers	Polypropylene
Plastic Components	Polypropylene
Differential Pressure	< 3.5 Kg/cm ² at 25°C
Maximum operating Temperature	80 °C at < 2 Kg/cm ²
Reverse Pressure	< 0.7 Kg/cm ² at 25°C
Sterilization	By Autoclaving or Steam-in-place (SIP)

LOT RELEASE CRITERIA

100% Integrity Tested : The cartridge filter has been tested for integrity by Air Diffusion Flow Test and Bubble Point Test using purified water.
 Diffusion flows were: $\leq 15 \text{ ml/min @ } 3.52 \text{ Kg/cm}^2$
 Bubble point with was: $\geq 65 \text{ psi (4.48 Bar)}$.

Typical Water Flow Rate : 7 lpm @ 0.70 Kg/cm² @ 27 °C

Microbial Challenge Test : Retains $\geq 10^7$ organisms/cm² of *Acholeplasma laidlawii* (ATCC 23206).

VALIDATED FOR

Bubble point (50% IPA) : The filter is certified/validated for integrity by Bubble point test using 50% IPA/Water solution. Bubble point $\geq 26 \text{ psi (1.79 Bar)}$

Heat Stability : Maintains integrity after 25 Steam sterilization cycles at 135 °C for 30 minutes each.

Bacterial Endotoxin : Aqueous extracts exhibit < 0.25 EU/mL as established by Limulus Amebocyte Lysate (LAL) test as per USP <85>.

Extractable : Within limits as specified in USP.

Oxidizable matter : Passes test as per USP.

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).

Total Organic Carbon : Meets USP <643> limit of 500 ppb for total organic carbon after flushing specified volume of water for injection.

Conductivity : Meets USP <645> limit of 1.3 $\mu\text{S/cm}$ at 25 °C for water conductivity after flushing specified volume of water for injection.

CUSTOMER SUPPORT

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

T. No.: COQ/CAR/004-04



Head of Quality Assurance

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