

Mem-PLEAT SG & Pur-MAXX SG

Sterilizing Grade Pleated Polyethersulfone Membrane

▶ DIAGNOSTICS
▶ LARGE VOLUME
PARENTERALS

▶ BUFFER SOLUTIONS
▶ CELL CULTURE
PURIFICATION

▶ FINAL FILTRATION
OF WFI AND
CIP WATER
▶ VACCINES



Strainrite's [Sterilizing Grade Pleated Polyethersulfone Membrane Cartridges](#) are engineered to meet the highest standards of microorganism control for sterile fluids. These filter elements are validated for complete removal of *Brevundimonas diminuta* (ATCC 19146) at test concentrations of 10^7 CFU/cm² (Colony Forming Units).

This product is ideally suited for applications where microorganism contamination causes product defects or extra processing time due to increase fluid instability. These cartridges are produced utilizing a unique multi-pleated configuration integrating highly asymmetric and hydrophillic polyethersulfone membrane with exceptional pleat support materials. This novel multi-pleated approach increases cartridge life, strength and durability, and allows our filter cartridges to withstand multiple sterilization cycles without sacrificing product integrity.

These cartridges comply with FDA CFR Title 21 and USP Biological Reactivity for Class VI Plastics. By combining these ultra pure components with the low protein binding features of highly asymmetric hydrophillic polyethersulfone membrane makes them perfect for applications in the biopharmaceutical and bottled water industries.



- ▶ **VALIDATED 0.2 μ m ABSOLUTE RATED MEMBRANE CARTRIDGE**
- ▶ **HIGH SURFACE AREA MEMBRANE OFFERS EXCELLENT LIFE AND FLUX RATES WHILE PROVIDING ABSOLUTE FILTRATION**
- ▶ **ABSOLUTE-RATED DUAL LAYER MEMBRANE PROVIDES RELIABLE, CONSISTENT AND REPEATABLE FILTRATE QUALITY**
- ▶ **LOW PRESSURE DROPS YIELD HIGHER FLOW RATES AND REDUCED PROCESSING TIME**
- ▶ **NON-FIBER SHEDDING POLYPROPYLENE SUPPORT MATERIALS ELIMINATE FIBER MIGRATION**
- ▶ **PLEAT DESIGN FOR GREATER SURFACE AREA: LONGER SERVICE LIFE, FEWER CHANGE OUTS AND REDUCED OPERATING COSTS**
- ▶ **100% THERMALLY BONDED CONSTRUCTION**
- ▶ **INTEGRITY TESTED**
- ▶ **HIGH STRENGTH DESIGN ALLOWING FOR EXTENDED USE AND MULTI AUTOCLAVE AND HOT WATER SANITIZATION CYCLES**
- ▶ **316 SS REINFORCED END TREATMENTS**
- ▶ **ALL MATERIALS OF CONSTRUCTION ARE FDA COMPLIANT WITH CFR TITLE 21 AND ARE BIO-SAFE IN ACCORDANCE WITH USP CLASS VI**
- ▶ **VALIDATION GUIDE AVAILABLE ON REQUEST**

ORDER GUIDE



ABSOLUTE RATED RETENTION

0.2

MAXIMUM DIFFERENTIAL PRESSURE

Forward:
75 psid (5.1 bar) @ 75°F (24°C)
40 psid (2.8 bar) @ 180°F (82°C)

Reverse:
50 psid (3.4 bar) @ 75°F (24°C)

MAXIMUM OPERATING TEMPERATURE

180°F (82°C) Continuous Duty Polypropylene

TOXICITY

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

STERILIZATION

Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C)
Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

PACKAGING ECONOMY

Bulk packaging in case quantities to reduce material disposal:

5 inch - 48 per carton | 10 inch - 24 per carton | 20 inch - 12 per carton | 30 inch - 12 per carton | 40 inch - 9 per carton

FILTER MEDIA

Polyethersulfone

END CAPS/ CAGE/CORE

Polypropylene

PLEAT SUPPORT MATERIAL

Polypropylene

REINFORCING RING

316 Stainless Steel

SEALS

Buna N | Fluorocarbon | EPDM | Silicone

CONSTRUCTION METHOD

Thermal Bond

OUTSIDE DIAMETER

MPESG: 2.55" (6.48cm) | PRMXESG: 2.7" (6.87cm)

APPROXIMATE SURFACE AREA

6.5 square feet per 10" equivalent

LENGTHS

5 inch (12.7 cm) | 10 inch (25.4 cm) | 20 inch (50.8 cm) | 30 inch (76.2 cm) | 40 inch (102 cm)

INTEGRITY TEST VALUES

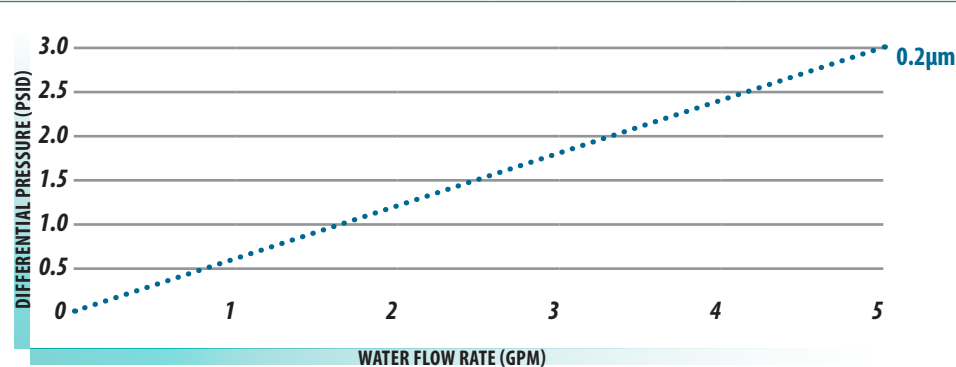
PORE SIZE	BUBBLE POINT	TEST PRESSURE	AIR DIFFUSION
0.2-SG	50 psig	40 psig	≤16mL/min

USP PHYSIOCHEMICAL TESTS FOR PLASTICS

Ultrapure water extracts from multiple lots of cartridges were tested and shown to have values that comply with USP limits

TEST	RESULTS	USP LIMIT
Non volatile residue	<2mg	<15mg
Heavy Metals	<1ppm	<1ppm
Residue on Ignition	<2mg	<5mg
Buffering Capacity	<1mL	<10mL

PERFORMANCE CHARACTERISTICS



ORDER OPTIONS

CARTRIDGE	
MPE PRMXE	Mem-Pleat E (2.55") Pur-MAXX E (2.7")
MICRON RATINGS	
0.2	
CARTRIDGE LENGTH	
5, 10, 20, 30, 40	
PLEAT SUPPORT	
PP	Polypropylene
END CAP CONFIGURATIONS	
C3	Flat/222
C6	Flat/226
C7	Fin/226
C8	Fin/222
GASKET/O-RING MATERIAL	
S	Silicone
B	Buna N
V	Fluorocarbon
E	EPDM
CONFIGURATION	
-	0.2/0.2
452	0.45/.02
101	0.1/0.1
201	0.2/0.1
CARTRIDGE GRADE	
SG	Sterilizing Grade
OPTIONS	
GI	Gamma Irradiation