

Supor™ EAV

MEMBRANE FILTER CARTRIDGES

Supor™ EAV filters incorporate a hydrophilic and asymmetric polyethersulfone (PES) membrane to combine superior dirt load capacity for even the finest particles with a broad pH compatibility. They offer extended service life, as well as very short processing times in the case of high-volume buffers, cell culture media, and supernatants.

In biotechnology, blood product, vaccine, and buffer applications, these membrane benefits mean higher yield, higher process safety, less total filtration time, less filters to change, and less cost.

The key features of Supor EAV membrane filter cartridges include:

- Hydrophilic, controlled asymmetric PES membrane
- Bacterial titer reduction in excess of 1×10^6 for *Brevundimonas diminuta*
- Low binding PES membrane
- High membrane area with laid-over pleat construction combined with a narrow diameter core

The benefits of Supor EAV membrane filter cartridges include:

- High microbial and particulate reduction with outstanding service life
- Low bioburden levels in filtrate, regardless of bacterial loading
- Maximum transmission of proteins
- High flow rates, increased robustness, and smaller multi-cartridge assemblies



Fig 1. Supor EAV membrane filter cartridges.



Specifications

Material of construction

Membrane	Single layer of hydrophilic, asymmetric PES (nominal 0.2 µm particulate rating)
Drainage layers	Polypropylene (PP)
Core, end caps, cage, fin	PP ¹
Adapter	PP with polyetherimide reinforcing ring
O-rings	Silicone elastomer or ethylene propylene rubber (EPR)

¹ Cage contains TiO₂ whitener which does not contribute to organic extractables.

Operating parameters ²

Maximum differential pressure	5.5 bar (80 psi) at 40°C
(Forward direction)	3.0 bar (43.5 psi) at 80°C

² In compatible fluids which do not soften, swell or adversely affect the filter or its materials of construction.

Sterilization

<i>In-situ</i> steam ³	10 × 60 minute cycles at 125°C
-----------------------------------	--------------------------------

³ With a 30 minute air cooling cycle after each cycle. Maximum differential pressure 300 mbar (4.35 psi) in forward direction; 200 mbar (2.9 psi) in reverse direction. Steam life and service life data were determined by testing under controlled laboratory conditions up to the time indicated. Actual operating conditions may affect the filter's long-term resistance to steam sterilization and hot air service. Filters should be qualified for each process application.

Typical non-volatile residue (NVR) extractables in water at 20°C ⁴

< 50 mg NVR after 4 hours extraction (per 254 mm cartridge)

⁴ Tested on elements without pre-flushing after 1 × 60 minute autoclave cycle at 125°C.

Nominal effective filter area (EFA)

127 mm (5 in.) cartridge	0.51 m ²
254 mm (10 in.) cartridge	1.06 m ²
508 mm (20 in.) cartridge	2.12 m ²
762 mm (30 in.) cartridge	3.18 m ²
1016 mm (40 in.) cartridge	4.24 m ²

Integrity test values (test gas: air, water wet) ⁵

Maximum allowable forward flow	< 50 mL/min at 2060 mbar (30 psi)
--------------------------------	-----------------------------------

⁵ Preflush at 5 L/min per 254 mm (10 in.) module for 10 minutes prior to forward flow testing. Please contact Cytiva for multi-element integrity test values. Values are for one 254 mm (10 in.) filter at 20°C.

Flow rates

Typically 20 L/min/254 mm (10 in.) element at 100 mbar
--

Ordering information ⁶

Cartridge style	Nominal length	O-ring material	Product code
Double O-ring with bayonet lock and flat end	127 mm (5 in.)	Silicone	AB05UEAV2PH4
		EPR	AB05UEAV2PJ
	254 mm (10 in.)	Silicone	AB1UEAV2PH4
		EPR	AB1UEAV2PJ
	508 mm (20 in.)	Silicone	AB2UEAV2PH4
		EPR	AB2UEAV2PJ
	762 mm (30 in.)	Silicone	AB3UEAV2PH4
		EPR	AB3UEAV2PJ
	1016 mm (40 in.)	Silicone	AB4UEAV2PH4
		EPR	AB4UEAV2PJ
Double O-ring with bayonet lock and finned end	127 mm (5 in.)	Silicone	AB05UEAV7PH4
		EPR	AB05UEAV7PJ
	254 mm (10 in.)	Silicone	AB1UEAV7PH4
		EPR	AB1UEAV7PJ
	508 mm (20 in.)	Silicone	AB2UEAV7PH4
		EPR	AB2UEAV7PJ
	762 mm (30 in.)	Silicone	AB3UEAV7PH4
		EPR	AB3UEAV7PJ
	1016 mm (40 in.)	Silicone	AB4UEAV7PH4
		EPR	AB4UEAV7PJ

⁶ For availability of specific options, please contact Cytiva or your local Cytiva distributor.

cytiva.com

Cytiva and the Drop logo are trademarks of Life Sciences IP Holdings Corporation or an affiliate doing business as Cytiva.

Supor is a trademark of Global Life Sciences Solutions USA LLC or an affiliate doing business as Cytiva.

Any other trademarks are the property of their respective owners.

The Danaher trademark is a proprietary mark of Danaher Corporation.

© 2025 Cytiva

For local office contact information, visit cytiva.com/contact

CY53270-03Sep25-DF

