MEDICAL

Asymmetric Membranes

220607.1OGL

For Highly Efficient Fluid Clarification

Asymmetric membranes are different from conventionally cast microporous membranes in that the larger pores on the upstream side of the membrane act as a prefilter while the absolute rated downstream side, or exclusion zone, acts as an absolute cut off layer. This is in contrast to traditional microporous materials which have comparable pore sizes on both the upstream and downstream sides of the membrane. The graded nature of asymmetric membranes results in a sidedness to the membrane, requiring knowledge of the upstream side of the membrane for optimal performance.
Our portfolio of asymmetric membranes includes two media types for optimal performance.

Asymmetric Polyethersulfone

The asymmetric polyethersulfone (PES) membranes are constructed specifically for diagnostic applications. The graded pore structure helps maintain flow rates as larger-sized particles are captured on the upstream side of the membrane, leaving the smaller pores to carry out the final filtration step.

Asymmetric Super Micron Polysulfone (MMM)

MMM membranes are super micron polysulfone (PS) filters which have pore sizes ranging from 0.1-10 µm. Featuring a patented asymmetric pore structure, these media are highly porous and inherently wettable. The MMM family of asymmetric membranes are low protein binding and have been certified to comply with United States Pharmacopeia (USP) Biological Reactivity Test, *In Vivo* <88> for biological safety. These membranes can be gamma sterilized and are well suited for sample preparation and prefiltration, applications.

Applications

- Prefiltration
- Sample clarification
- Clarification of viscous samples
- Particulate removal

Sealing

- Mechanical
- Heat
- Lamination
- Insert molding
- RF welding

Product Information

Asymmetric Polyethersulfone (PES)

Typical Membrane Characteristics					Typical Performance Characteristics	
	Base Material	Nominal Pore Size (µm)	Thickness		Water Bubble Point (psi)	Water Flow (ml/min/cm^2 @ 10 psi)
			mils	µm		
Supor® MachV C200 Membrane	Asymmetric Polyethersulfone	0.2	6.9-9.1	175.3 – 231.1	≥ 54.3	≥ 27.3
Supor® MachV A650 Membrane	Asymmetric Polyethersulfone	0.65	4.5-6.9	114.3 – 175.3	≥ 18.0	≥ 54.0

Product Information

Specification

Asymmetric Super Micron Polysulfone (MMM)

Typical Membrane Characteristics

Base Material	Pore Size (µm)	Thickness (Mean) (mils)	Thickness (Mean) (µm)
Asymmetric super micron polysulfone (MMM)	0.1	4.1-5.7	120.0-145.0
Asymmetric super micron polysulfone (MMM)	0.45	4.9-7.3	125.0-185.0
Asymmetric super micron polysulfone (MMM)	0.8	6.5-7.9	165.0-200.0
Asymmetric super micron polysulfone (MMM)	5	4.7-6.3	116.8-165.1
Asymmetric super micron polysulfone (MMM)	8	4.7-6.7	120.0-160.0
Asymmetric super micron polysulfone (MMM)	10	4.7-6.7	120.0-170.0

Typical Membrane Characteristics

Base Material	Pore Size (µm)	Water Flow (Mean) (ml/min/90mm disc @ 0.7 bar, 10 psi)	Water Flow (Mean) (ml/min/47mm disc @ 0.7 bar, 10 psi)
Asymmetric super micron polysulfone (MMM)	0.1	≥ 200	N/A
Asymmetric super micron polysulfone (MMM)	0.45	≥ 600	N/A
Asymmetric super micron polysulfone (MMM)	0.8	≥ 6000	N/A
Asymmetric super micron polysulfone (MMM)	5	N/A	N/A
Asymmetric super micron polysulfone (MMM)	8	N/A	≥ 200
Asymmetric super micron polysulfone (MMM)	10	N/A	≥ 300

Ordering Information

Custom roll, sheet, and disc sizes available upon request. Please contact your local sales representative for additional information.

Part Number	Description	Pkg
S80803	Supor® MachV C200 membrane, 0.2 µm, 8” x 10” sheet	1/pkg
S80800	Supor® MachV A650 membrane, 0.65 µm, 8” x 10” sheet	1/pkg
T9EXPPA0010S00M	MMM membrane, 0.1 µm, 8” x 11” sheet	1/pkg
T9EXPPA0045S00M	MMM membrane, 0.45 µm, 8” x 11” sheet	1/pkg
T9EXPPA0080S00M	MMM membrane, 0.8 µm, 8” x 11” sheet	1/pkg
T9EXPPA0500S00M	MMM membrane, 5.0 µm, 8” x 11” sheet	1/pkg
T9EXPPA0800S00M	MMM membrane, 8.0 µm, 8” x 11” sheet	1/pkg
T9EXPPA1000S00M	MMM membrane, 10 µm 8” X 11” sheet	1/pkg

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