

DURA PES Hydrophilic membrane

Picture:



Product Description:

Dura PES membrane is a highly asymmetric polyethersulfone membrane, which demonstrates excellent throughput and higher durability in many applications such as pharmaceutical and biological filtration, wine clarification, juice filtration and beer filtration. Dura PES has a patented pore structure with a protected separation layer and a unique polymer blend that allows it to remain permanently hydrophilic. Additionally Dura PES has a large pore diameter, which provides a high flux rate with a very low fouling tendency. Many biotechnology and pharmaceutical end uses require high quality and consistency. Time and time again, our membranes meet the challenge and provide durable membranes with superior performance

The Dura PES filtration membrane features a patent-pending pore structure and dual asymmetric membrane wall that provides a protected separation layer, which provides high loading capacity. Dura PES is a hydrophilic sulfonated polyethersulfone (PES) flat sheet membrane that offers permanent hydrophilicity due to its unique polymer blend and has 80% porosity and a large pore diameter, which provides a high flux rate for superior filtration performance. It also has higher water permeability resulting in increased throughput.

Features and Benefits:

- Dual asymmetric wall
- Inherently hydrophilic
- Patent-pending pore structure
- Excellent retention characteristics
- Higher loading capacity
- 80% porosity
- Large pore diameter
- High flux rate
- Higher water permeability

Application:

- Pharmaceutical and biological filtration
- Wine clarification
- Juice filtration
- Beer filtration
- Removal of particles in therapeutics, injectibles, and buffer solutions
- Clarifying and filtering water

Technical Specification:

2F hydrophilic flat membrane

Chemical composition			
Polymer	Polyethersulfone		
Physical properties			
Thickness	110 $\mu\text{m} \pm 10 \mu\text{m}$	4,331 mil \pm 0,394 mil	711/013
Tensile strength			701/012
longitudinal	> 900 CN/15 mm		
transversal	> 800 CN/15 mm		
Elongation at break			701/012
longitudinal	> 25 %		
transversal	> 30 %		
Burst pressure	> 1 bar	14,5 psi	711/004
Change of length (steam, 121°C)	< 3 %		701/027
Membrane performance characteristics			
Bubble point (in water)	4,3 bar \pm 0,54 bar	62,4 psi \pm 7,8 psi	711/008
Transmembrane flow	> 35ml/min cm ² bar	2242 ml / min sq.ft. psi	711/046
(water, 25°C) Retention of bacteria Brevundimonas diminuta	> 7 log. red. value	15,57ml/min sq.in.psi	713/0.0001
Available make-up configurations			
Rolls	Length \geq 100m	Width	\geq 254mm

4F hydrophilic flat membrane

Chemical composition			
Polymer	Polyethersulfone		
Physical properties			
Thickness	110 $\mu\text{m} \pm 10 \mu\text{m}$	4,331mil , 0,394mil	711/013
longitudinal Tensile strength	> 900 CN/15 mm		701/012
transversal	> 800 CN/15 mm		
Elongation at break			
longitudinal	> 25 %		701/012
transversal	> 30 %		
Burst pressure	> 1 bar	14,5 psi	711/004
Change of length (steam, 121°C)	< 3 %		701/027
Membrane performance characteristics			
Bubble point (in water)	3,0 bar $\pm 0,25$ bar	43,5psi $\pm 3,6$ psi	711/008
Transmembrane flow	>60 ml/min cm ² bar	3843ml/min sq.ft. psi	711/046
(water, 25°C) Retention of bacteria Serratia marcescens	> 7 log. red. value	26,69ml/min sq.in. psi	713/0.0004
Available make-up configurations			
Rolls	Length $\geq 100\text{m}$	Width $\geq 254\text{mm}$	

Order Information:

Item Number	Membrane Material	Filter Pore Size(μm)
DUPES022	PES	0.22

Provide membrane slitting and cutting to meet special request of our clients.

Flexibility for OEM Requirement:

Dura PES membrane are available in different diameters, pore size, lurelock connections and packing depends on your quantity, can be customized to meet your application requirements. Because we are specialized OEM manufacture, all customization can be done easily and cost effectively.