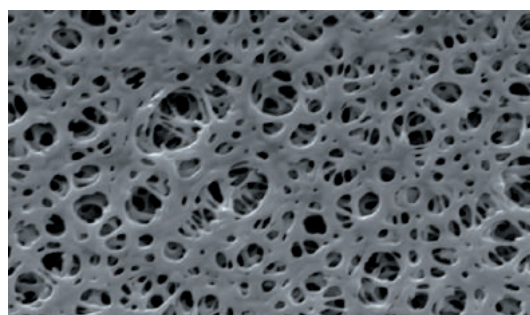


3.1.3 - Polyethersulfone (PES) Membrane



Description and Use

GVS Life Sciences Polyethersulfone (PES) Filtration Membrane is hydrophilic and cast from pure polyethersulfone polymer. It is designed to remove particulates during general filtration and its low protein and drug binding characteristics make it ideally suited for use in life science applications.

Features and Benefits

- **Hydrophilic:** Eliminates the need for wetting agents that can potentially interfere with analyses
- **Low extractables:** Ensures test results will not be compromised by wetting agents or other extractables
- **Low drug and protein binding:** Maximizes recovery of critical drugs or proteins
- **Wide range of pore sizes:** Pore size range of 0.03 μm to 5.0 μm enables specific pore size selection for given applications
- **Superior burst strength:** Protects the integrity of the membrane under high pressure
- **Lot-to-lot consistency:** Quality checks, both down and across the membrane, ensure dependable results every time

Typical Applications

- Protein and enzyme filtration and sterilization
- Biological fluid filtration and sterilization
- Pharmaceutical sterilization
- Environmental water studies

Product Uniformity and High Sensitivity Maximize Performance

This strong, microporous film asymmetric membrane is constructed from a high-temperature polyethersulfone polymer that is acid and base resistant. Its strength and durability are advantageous during usage that involves aggressive handling or automated equipment. GVS Life Sciences PES Filtration Membrane is naturally hydrophilic without added wetting agents and has low extractables. Due to its inherent uniform porosity and controlled pore size, GVS Life Sciences PES Filtration Membrane efficiently removes particulates from solutions during general filtration. Additionally, its low protein and drug binding characteristics maximize recovery of critical drugs used in I.V. therapy, chemotherapy and open-heart surgery.

Table 1: Product Characteristics

Endotoxin levels, USP Class VI toxicity	Passed
Thickness	110 - 150 μm
Extractables	< 2% (< 0.015 mg/cm ²)
Maximum Operating Temperature	266°F (130°C)
Sealing Compatibility	Ultrasonics, Heat, Radio Frequency and Insert Molding
Pore Size Range	0.03 to 5.0 μm

Table 2: Performance Characteristics

Pore Size	0.03 μm	0.1 μm	0.22 μm	0.45 μm	0.65 μm	0.8 μm	1.2 μm	5.0 μm
Flow Rate (mL/min/cm ² @10psi)	7.95-3.18	15.91-7.95	45.45-22.72	79.53-39.77	132.55-63.63	159-80	196-98	255-127
Bubble Point (psi)	90-110	70-90	50-70	35-50	21-32	13-28	11-22	6-13
Thickness (μm)	110/150	110/150	110/150	110/150	110/150	110/150	110/150	110/150

Ordering information

Dimensions Packaging	13 mm 100/pk	25 mm 100/pk	47 mm 100/pk	90 mm 25/pk	142 mm 25/pk	293 mm 25/pk	150x50 mm 5/pk	200x200 mm 5/pk	30 cmx3 m 1/pk
0.03 μm	3032875	3032876	3029505	3018505			1239465	1235748	3057106
0.1 μm			1214756	1222230				1225881	3026365
0.22 μm		1214193	1214465	1214920	1214169	1214759		1223871	1226664
0.45 μm		1214532	1214475	1215368	1214170	1214760		1225882	1226665
0.65 μm			1224487			1224490		1225883	1225985
0.8 μm		1214604	1214568	1214669				1225884	3037376
1.2 μm		1222267	1221008	1224492				1223340	1242278
3.0 μm								1232921	
5.0 μm	1224495	1224003	1215396	1224496				1236292 1233863*	3030900**

*30pk

**Hydrophobic