

FILTRATION MEMBRANES

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3.1 Membranes for Filtration

3.1.1 - Cellulose Acetate (CA) Membrane AcetatePlus™



Description and Use

GVS Life Sciences Cellulose Acetate (CA) Filtration Membrane is a supported, hydrophilic membrane that is naturally low binding. It is ideal for use in filtration applications where maximal recovery of protein is critical.

Features and Benefits

- **Superior strength:** Can withstand aggressive handling or be used with automated equipment without breaking or tearing.
- **Low extractables:** Ensures tests will be clean with consistent results.
- **Hydrophilic:** Wets out rapidly.
- **Lot-to-lot consistency:** Quality checks ensure consistent flow and diffusion rates for dependable results every time.
- **Nonlysing of cells:** Prevents contamination of critical solutions.

Typical Applications

- Protein and enzyme filtration
- Biological fluid sterilization
- Tissue culture media sterilization
- Cold sterilization

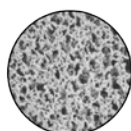


Figure 2: Scanning Electron Micrograph of GVS Life Sciences CA Filtration Membrane

Exceptional Strength for Improved Performance

Produced through a proprietary manufacturing process, GVS Life Sciences CA Membrane meets rigorous quality standards throughout every step of production. This process generates consistent lot-to-lot filtration properties among the membranes and ensures product uniformity.

GVS Life Sciences CA Filtration membranes are composed of pure cellulose acetate that is internally supported by an inert polyester web. This web gives each membrane exceptional strength to prevent cracking, tearing, breaking and distortion when handled or creased. The resulting membrane has dimensional stability that can withstand autoclaving or steam sterilizing leaving the membrane unaffected in temperatures up to 274°F (135°C).

The exceptional dimensional strength and low binding characteristics of GVS Life Sciences CA Filtration Membranes provides higher throughputs than competitive offerings and reduces the amount of filter changes needed during proteinaceous solution filtering. Its uniform pore size and consistent flow rates ensure reliable performance.

Flexibility for OEM Requirements

GVS Life Sciences CA Filtration Membrane is available in rolls from 25mm to 30cm wide, as well as sheets and cut disks that can be customized to meet your application and size requirements. GVS Life Sciences CA Filtration Membranes are manufactured on-site making customization easy and cost effective.

Table 2: Product Characteristics

USP Class VI testing	Passed
Thickness	65 - 110 µm
Maximum Operating Temperature	274°F (135°C)
Sealing Compatibility	Ultrasonics, Heat, Radio Frequency and Insert Molding
Pore Size Range	0.1 to 20 µm

Table 3: Performance Characteristics

Pore Size	0.22µm	0.45µm	0.6µm	0.8µm	1.2µm	5.0µm	10.0µm	20µm
Minimum Bubble Point psi (kg/cm²)	50 (3.50)	30 (2.10)	18 (1.26)	14 (0.98)	11 (0.77)	6 (0.42)	5 (0.35)	3 (0.21)
Typical Flow Rate, mL/min/cm² @ 10psi (0.7 kg/cm²)	16.1 (1.13)	54.7 (3.85)	70.9 (4.98)	81.3 (5.72)	180 (12.7)	375 (26.4)	592 (41.6)	1478 (104)

Ordering information: Cellulose Acetate (CA) Membrane

Dimensions Packaging	13mm 100/pk	25mm 100/pk	47mm 100/pk	50mm 100/pk	90mm 25/pk	102mm 25/pk	142mm 25/pk	293mm 25/pk	20x20mm 5/pk	30cmx3m 1/pk
0.22 µm	1212374	1213124	1213804	1221730	1214357		1215074	1215427		1224211
0.45 µm	1215533	1215635	1215676	3052874	1212375	1221546	1212517	1212620		1240382
0.65 µm		1212846	1212942		1213037		1213125		3061196	
0.8 µm	1213305	1213343	1213358				1213516		3034974	3034975
1.2 µm		1213730	1213805				1213958	1214038		3041202
5.0 µm		1214370	1214411		1212648		1214851			3049247