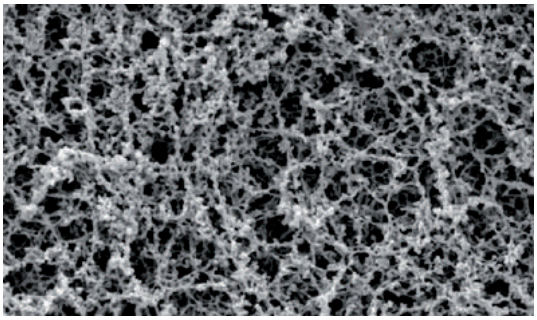
3. FILTRATION MEMBRANES

3.1 Membranes for Filtration

3.1.1 - Cellulose Acetate (CA) Membrane

ACETATE Cellulose Acetate Membrane Plus



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

Exceptional Strength for Improved Performance

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.

Table 1: Product Characteristics

USP Class VI testing	Passed
Thickness	110 - 190 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 2: 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

Pore sizes: Dimensions / Packaging	13 mm 100/pk	25 mm 100/pk	47 mm 100/pk	50 mm 100/pk	90 mm 25/pk	102 mm 25/pk	142 mm 25/pk	293 mm 25/pk	20x20 mm 5/pk	30 cmx 3m 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