

The Membrane Selector Guide Fit-for-purpose filtration starts here.





Particle size: 1 kDa to 500 kDa **Examples:** Proteins, virus, nucleic acids and nanoparticles Filter type: Ultrafilters

Particle size: 0.025 µm to 10 µm Examples: Bacteria including B. diminuta, microorganisms, undissolved excipients, dust, asbestos, mycoplasma Filter type: Screen filters

Examples: Large particles in environmental samples and industrial fluids, total suspended solids in wastewater, cell aggregates and multicellular organisms, pollen



Ultracel[®]–PL Membrane



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Section and the section of the secti	Brand Name	Ultracel [®] -PL Membrane
	Membrane Material	Regenerated Cellulose
	Pore Sizes (NMWL)	1 to 100 kDa
PROFIL AND	Wettability	Hydrophilic
1.1.1	Chemical Compatibility	Broad chemical compatibility, compatible with
Dress Side		both aqueous and organic solvents
AL DE LAY	Sterilizability	Autoclave, EtO and solvent incubation
100 100 100	Surface Option	White
	Key Properties	Low protein binding, Polyolefin backing material provides support without impeding flow
	Key Applications	Concentration of protein solutions, separation of low from high molecular weight molecules, protein binding studies, buffer exchange
\$\$\$\$K\$\$?\$	Devices	Amicon Ultra [®] devices, Stirred cell membrane discs, Microcon [®] devices, Centrifree [®] devices

Biomax [®] Mei	mbrane
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	Brand Name	Biomax [®] Membrane
	Membrane Material	Polyethersulfone (PES)
niedzie w kara z starowa w kara star Na starowa za starowa w kara starowa w	Pore Sizes (NMWL)	5 to 500
	Thickness (μm)	300
	Wettability	Hydrophilic
1. 1. 200	Temperature Limitations	50 °C max
Sec. Sec.	Chemical Compatibility	Compatible with aqueous solvents and alcohols
		Compatible with pH 1-14
Sec. 2 Sec. 6	Sterilizability	Autoclave, EtO and solvent incubation
	Surface Option	White
	Key Properties	Low to moderate protein binding, high flow rate,
2.84.94		Polyolefin backing material
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Key Applications	Concentration of protein solutions, separation
		of low from high molecular weight molecules,
		buffer exchange
	Devices	Stirred cell filter discs



∕IF–Mill	ipore™ Membrane	
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	Brand Name	MF-Millipore [™] Membrane
1 miles	Membrane Material	Mixed Cellulose Esters (MCE)
2 9	Pore Sizes (µm)	0.025 - 8
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		105 150

	Brand Name	MF-Millipore™ Membrane
	Membrane Material	Mixed Cellulose Esters (MCE)
E C	Pore Sizes (µm)	0.025 - 8
X	Thickness (μm)	105 -150
1.0	Water Flow (mL/min/cm ²)	20.1 - 625
25	@27.5 in. Hg	
	Air Flow (L/min/cm ²) @ 10 psi	0.12 - 68.9 (typical values)
	Porosity (%)	70 - 84
115	Wettability	Hydrophilic
	Refractive Index	1.50 -1.52
1	Temperature Limitations	55 °C max
	Protein Binding Capacity	(lgG) 299 - 319 μg/cm ²
	Chemical Compatibility	Recommended for aqueous solvents
4	Sterilizability	Autoclave, EtO
-	Surface Option	Black, white, gridded
	Key Properties	Versatile fast-flowing membrane, supports cell growth, high protein-binding
1	Key Applications	Sterilizing filtration, air monitoring, general clarification, bacteriological analysis, drop dialysis, particle analysis, colony hybridization, nucleic acid and protein blotting. Elispot
2	Devices	Millex [®] syringe filters, Millicell [®] plates/inserts, Cathivex [®] filters, MultiScreen [®] plates, Stericup [®] filters, Steritest [™] devices, Sterivex [™] filters, Microfil [®] devices, filter discs

Fluoropore [™] Membrane	
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	Brand Name	Fluoropore™ Membrane
	Membrane Material	Hydrophobic Polytetrafluoroethylene (PTFE)
ma	Pore Sizes (µm)	0.2 - 3
178	Thickness (μm)	50 -150
11/	Porosity (%)	85
	Liquid Flow (mL/min/cm ²)	24 - 286 (methanol)
	@27.5 in. Hg	
1/1	Air Flow specs (L/min/cm ²)	5 - 20
	@ 10 psi	
115	Wettability	Hydrophobic
	Temperature Limitations	130 °C max
₩Z	Chemical Compatibility	Compatible with both aqueous and organic
		solvents
W.S.	Sterilizability	Autoclave, EtO
	Surface Option	White
	Key Properties	Solvent-resistant, fast-flowing, low pressure
		drop, low extractables, low binding
	Key Applications	Clarifying acids, bases and solvents, air
		monitoring, filtering and venting gases, UV
		spectroscopy, radiation monitoring
MW/	Devices	Millex [®] syringe filters, filter discs

apor	e [®] Membrane	
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4	Brand Name	Durapore [®] Membrane
	Membrane Material	Polyvinylidene Difluoride (PVDF)
in le	Pore Sizes (µm)	0.1 - 5
	Thickness (µm)	80-140
	Water Flow (mL/min/cm ²)	(hydrophilic) 4 – 208
S.	@27.5 in. Hg	
	Air Flow (L/min/cm ²) @ 10 psi	(hydrophobic) 0.9 - 4.9 (typical values)
19 Aug	Wettability	Hydrophilic and hydrophobic options
	Refractive Index	1.42
	Temperature Limitations	85 °C max
	Protein Binding Capacity	(IgG) < 10 μg/cm ²
100	Chemical Compatibility	Recommended for aqueous solvents
	Sterilizability	Autoclave, EtO and gamma
	Surface Option	White
	Key Properties	Low protein-binding (hydrophilic), solvent-resistant (hydrophobic)
	Key Applications	Sterilizing filtration, clarifying filtration of

evices

rand Name Membrane Material

Pore Sizes (µm)

hickness (μm)

@27.5 in. Hg Vettability

terilizability Surface Option

Key Properties

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Mitex[™] Membrane

Key Applications

Protein Binding Capacity hemical Compatibility

Millipore Express[®] PLUS Membrane

protein-containing solutions, mycoplasma reduction, gas filtration and venting

Millex[®] syringe filters, Millipak[®] filters,

Millipore Express[®] PLUS Membrane

Recommended for aqueous solvents

Fast flow, high throughput, low protein binding

Sterilizing filtration of biological solutions

Stericup® filters, Millex® syringe filters,

MultiScreen[®] plates, filter discs

Autoclave, EtO and gamma

White, plain or gridded

Polyethersulfone (PES)

0.22, 0.45 130 - 185

Hydrophilic (IgG) 22 µg/cm²

Water Flow Rate (mL/min/cm²) 27 to greater than 44

filter discs

(hydrophobic), solvent filtration (hydrophobic)

MultiScreen[®] plates, Stericup[®] filters, Steritest[™] devices, Sterivex[™] filters, Ultrafree[®] filter units,

	Filter type: Dep	th and net filters		
Glass Fiber Filters				
		i ^{*0}) _n		
	Membrane Material	Borosilicate Glass or Quartz Microfibers	_	
	Pore Sizes (µm)	0.2 - 8.0		
	Thickness (µm)	230 - 1200		
	Water Flow Rate (mL/min/cm ²)	1.2 - 6.0		
	Air Flow (L/min/cm ²) @ 10 psi	10.6 - 139		
AN STA	Wettability	Hydrophilic		
	Temperature Limitations	500 to 950 °C max		
	Chemical Compatibility	Recommended for aqueous solvents	_	
	Sterilizability	Autoclave, EtO and gamma		

	Thickness (µm)	230 - 1200
AL X	Water Flow Rate (mL/min/cm ²)	1.2 - 6.0
M M	Air Flow (L/min/cm²) @ 10 psi	10.6 - 139
	Wettability	Hydrophilic
	Temperature Limitations	500 to 950 °C max
	Chemical Compatibility	Recommended for aqueous solvents
	Sterilizability	Autoclave, EtO and gamma
TREA	Surface Option	White
	Key Properties	Prefiltration down to 0.6 µm particles, high
		temperature-compatible and non-shedding
1 MARCH		options, pure and binderless materials
	Key Applications	Toxic Characteristic Leaching Procedure (TCLP),
		Total Suspended Solids (TSS), heavy metals
		analysis, prefiltration, air monitoring
	Devices	Millex [®] syringe filters, filter discs

Polypropylene Net Prefilters	



Membrane Material	Polypropylene
Pore Sizes (µm)	25 up to 80
Thickness (μm)	320 to 450
Wettability	Hydrophobic
Chemical Compatibility	Compatible with aqueous solvents
Sterilizability	Autoclave, EtO and gamma
Surface Option	White
Key Properties	Large pore size options, good solvent resistance
Key Applications	General prefiltration and clarification , suitable
	for organic solvents
Devices	Filter discs
	Membrane Material Pore Sizes (μm) Thickness (μm) Wettability Chemical Compatibility Sterilizability Surface Option Key Properties Key Applications

Polyprop	oylene Prefilters	
	Membrane Material	Polypropylene
	Pore Sizes (µm)	0.6 - 30
	Thickness (μm)	95 - 145
	Wettability	Hydrophobic
	Temperature Limitations	90 °C max
	Chemical Compatibility	Recommended for aqueous
	Sterilizability	Autoclave, EtO and gamma
	Surface Option	White
	Key Properties	High particle retention and dirt-holding
		capacity, low pressure drop
	Key Applications	General prefiltration and clarification, suitable
		for organic solvents
	Devices	Filter discs

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	Brand Name	Mitex™ Membrane	
1324	Membrane Material	Hydrophobic Polytetrafluoroethylene (PTFE)	
	Pore Sizes (µm)	5 - 10	
A Jack	Thickness (µm)	125 - 200	
ST. OH	Water Flow (mL/min/cm ²)	47 to greater than 125	
to balled	@27.5 in. Hg		
Section 2	Air Flow (L/min/cm²) @ 10 psi	117 - 167	
50 - 5 T	Wettability	Hydrophobic	
and the second second	Temperature Limitations	260 °C max	
22 20 20	Chemical Compatibility	Compatible with both aqueous and organic	
		solvents	
	Sterilizability	Autoclave, EtO	
10000	Surface Option	White, plain or gridded	
and the second	Key Properties	Pure PTFE (unbacked), easy handling, solvent-	
		resistant, fast-flowing, low extractables	
	Key Applications	Clarifying acids, bases, solvents and cryogenic	
		fluids, hydraulic fluid analysis	
and the second of the second sec	Devices	Millex [®] syringe filters, filter discs	

	wembrane waterial	Folycaroonate
	Pore Sizes (µm)	0.1 - 10
	Thickness (μm)	21 - 27
	Porosity (%)	5 - 10
	Water Flow Rate (mL/min/cm ²)	0.5 - 250
	@ 10 psi	
	Air Flow (L/min/cm ²) @10 psi	1.3 - 72 (typical values)
	Wettability	Hydrophilic
-	Refractive Index	1.6
	Temperature Limitations	140 °C max
	Chemical Compatibility	Compatible with both aqueous and organic
		solvent
	Sterilizability	Autoclave, EtO and gamma
00	Surface Option	White, brown
•	Key Properties	Narrow pore size distribution, collects particles on surface for analysis
	Key Applications	Particle analysis, air monitoring, microscopy, cell migration and chemotaxis assays, epifluorescence, size fractionation of cells and particulates
•	Devices	Millicell [®] plates/inserts, MultiScreen [®] plates, filter discs

Omnipore[™] Membrane



	Brand Name	Omnipore™ Membrane
IN NULL	Membrane Material	Hydrophilic Polytetrafluoroethylene (PTFE)
	Pore Sizes (µm)	0.1 - 10
	Thickness (μm)	30 - 85
5 3 3 3	Water Flow Rate (mL/min/cm ²)	2 - 1250
	@8.97 in. Hg	
	Wettability	Hydrophilic
	Chemical Compatibility	Compatible with both aqueous and organic
		solvents
10 25 10 10	Sterilizability	Autoclave, EtO
	Surface Option	White
	Key Properties	Compatible with both aqueous and organic
		solvents, broad chemical compatibility
N KHA/KI	Key Applications	Clarifying acids, bases and aqueous solutions
Charles Sel	Devices	Membrane

Mei	mbrane	
		F n
	Brand Name	LCR Membrane
- 4	Membrane Material	Hydrophilic Polytetrafluoroethylene (PTFE)
S Tree	Pore Sizes (µm)	0.45 only
O/P	Thickness (μm)	140
dIP	Porosity (%)	80
	Water Flow Rate (mL/min/cm ²) @27.5 in. Hg	28.4
	Air Flow (L/min/cm ²) @ 10 psi	1.1 (typical values)
	Wettability	Hydrophilic
alles	Temperature Limitations	130 °C max
NY Z	Chemical Compatibility	Compatible with both aqueous and organic solvents
10.2	Sterilizability	Autoclave, EtO
- THE	Surface Option	White
	Key Properties	Minimal extractable levels, broad chemical compatibility
	Key Applications	HPLC mobile phase filtration, clarifying acids, bases and dilute protein solutions
	Devices	Millex [®] syringe filters, Millex Samplicity [®] filters filter discs

on N	lembrane	
Ale Y	Membrane Material	Nylon
105	Pore Sizes (µm)	0.2 - 1.2
1.1	Thickness (µm)	150 - 190
See.	Water Flow Rate	8.0 - 21.2 (typical value)
Mark.	(mL/min/cm ²)@ 27.5 in. Hg	
	Wettability	Hydrophilic
	Chemical Compatibility	Compatible with both aqueous and organic
		solvents
1.1	Sterilizability	Autoclave, EtO and gamma
	Surface Option	White
1	Key Properties	General purpose, good solvent resistance
	Key Applications	Particle removal and clarification of solvents,
14		particle analysis
	Devices	Millex [®] syringe filters, filter discs

obilon [®] Membrane	(
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Brand Name	Immobilon [®] Membrane
Membrane Material	Polyvinylidene Difluoride (PVDF)
Pore Sizes (μm)	0.22 - 0.45
Wettability	Hydrophobic
Protein Binding Capacity	(IgG) Avg 333.4
Chemical Compatibility	Compatible with both aqueous and organic solvents
Sterilizability	Autoclave, EtO and gamma
Surface Option	White
Key Properties	High protein-binding, durable
Key Applications	Protein blotting (Western), Elispot
Devices	Membrane roll stock and sheet,
	MultiScreen [®] plates

Nylon Net	
Membrane Material	Nylon
Pore Sizes (μm)	10 -180
Thickness (µm)	45 -135
Porosity (%)	4 to 53
Wettability	Hydrophilic
Chemical Compatibility	Compatible with both aqueous and organic
	solvents
Sterilizability	Autoclave, EtO and gamma
Surface Option	White
Key Properties	Large pore size options, uniform pore structure
Key Applications	Cell collection, large particulate filtration,
	particle analysis, flow cytometry sample prep,
	toxicology and drug screening on C. elegans
	and zebrafish
Devices	Steriflip [®] filters, filter discs

einforced Prefilter Membrane		
SAN ANS	Membrane Material	Mixed Cellulose Esters around a polyester web
5000	Pore Sizes (µm)	0.2 - 1.2
Freed	Thickness (μm)	150 to 270
Sen Ha	Water Flow Rate (mL/min/cm ²)	12 - 260
	Wettability	Hydrophilic
island)	Temperature Limitations	70 °C max
SKAL SI	Chemical Compatibility	Recommended for aqueous solvents
181619	Sterilizability	Autoclave, EtO
CS8 60	Surface Option	White
6.6.	Key Properties	Non-shedding, high dirt-loading capacity, low
SATK .		pressure drop
DASK	Key Applications	Prefiltration ahead of sterilizing grade filters
	Devices	Filter discs



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