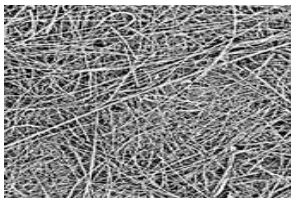


# MicroScience

## MICROFILTRATION



Qualitative and Quantitative Filter Papers



Glass Fibre Filters



Chromatography & Blotting Papers



Syringe Filters



Membrane Filters



Capsule Filters

Australia: 1800 643 339

New Zealand: 0800 1 289 266



MicroScience  
MICROFILTRATION

A world class range of membranes, syringe filters, glass fibre, filter papers and accessories for applications in Australia and New Zealand markets.

The MicroScience range has been developed for applications in Australia and New Zealand, offering:

- a very broad range of membrane and media options
- exacting, reproducible filtration specifications
- established quality control specifications

Developed for and tested in local market conditions, the MicroScience range provides an assurance of product consistency, reproducibility, uniform performance and superior product integrity.

# ADVANCING IN PRODUCTS, SUPPLY & SERVICE...

## **FILTER PAPERS**

Glass Fibre Filter Paper

Qualitative Filter Paper

Quantitative Ashless Filter Paper

Quantitative Hardened Ashless Filter Paper

Phase Separating Filter paper

## **SYRINGE FILTERS**

Cellulose Acetate

Polyethersulphone (PES)

Nylon

Glass Fibre

PVDF

Polypropylene

PTFE

## **STERILE MIXED ESTER MEMBRANE FILTERS**

## **CENTRIFUGE FILTERS**

## **CHROMATOGRAPHY & BLOTTING PAPERS**

## **LAMINATED BENCH PROTECTOR PAPER**

## **MEMBRANE FILTERS**

Selection Chart

Chemical Compatibility Chart

PES Membrane

Nylon Membrane

Acetate Membrane

Mixed Cellulose Ester Membrane

PTFE Membrane

Polycarbonate Membrane

Black Polycarbonate Membrane

Polypropylene Membrane

PM 2.5 Membrane Filters

Hydraflon Membranes

## **CAPSULE FILTERS**

## **DISPOSABLE MICROBIOLOGY FILTERS**

## **CELLULOSE THIMBLE FILTERS**

## **50mm SYRINGE VENT FILTERS**



# GLASS FIBRE FILTER MEDIA

## QUALITATIVE AND QUANTITATIVE FILTER PAPER

The MicroScience range of glass fibre and cellulose filter papers is manufactured to exacting quality standards within an ISO9001 Quality System.

Good Manufacturing Practice (GMP) ensures tight and reproducible product specifications, providing assurance of product consistency and uniform performance.

### GLASS FIBRE FILTER PAPER

MicroScience Glass Fibre depth filters are manufactured with very fine borosilicate glass fibres, offering high filtration efficiency, fast flow rates and high dirt holding capacity. The range of glass fibre filters is non-hygroscopic and biologically inert. MicroScience Glass Fibre filters are compatible with a broad range of solvents and reagents and can be used in applications to 500°C.

Grade	Application	Weight (g/m <sup>2</sup> )	Thickness (mm)	Porosity <sup>1</sup> (µm)	Pressure Drop <sup>2</sup> (kpa)	Binder
MS GA	General laboratory filtration; air pollution monitoring; water and waste water monitoring	52	0.25	1.6	3.3	No
MS GB	Higher dirt holding capacity. Prefilter for membrane filters, water and waste water monitoring	143	0.70	1.0	9.5	No
MS GC	Suspended solids analysis, cell harvesting and hydrocarbon analysis	52	0.26	1.2	5.4	No
MS GD	Higher dirt holding capacity. For universal applications and prefiltration	120	0.53	2.7	1.6	No
MS GF	Very high filtration effectiveness; clarification of protein solutions; TLCP leachate test	75	0.45	0.7	12.0	No
MS GG	Filtration and monitoring of water	65	0.28	1.5	3.0	No
MS GG550	Suspended Solids dried at temps 550 deg. C	65	0.30	1.5	-	No
MS 464	Thick filter for high dirt load applications	107	0.70	3.0	-	Yes

<sup>1</sup> Nominal rating in liquids

<sup>2</sup> In air at a flow velocity 0.4m/sec

## QUALITATIVE FILTER PAPERS

MicroScience Qualitative filter papers are manufactured from high purity cellulose fibres with ash contents less than 0.1%. The filter papers have a broad pH tolerance and are thermostable up to 120°C.

Grade	Application	Weight (g/m <sup>2</sup> )	Filtration Speed		Porosity <sup>3</sup> (µm)
			(s/100ml) <sup>1</sup>	(ml/min) <sup>2</sup>	
<b>MS 1</b>	Fast flow rate; for large crystalline particles and gelatinous precipitates	84	70	850	12-15
<b>MS 2</b>	Medium flow rate; for fine precipitates and crystalline particles	87	500	120	5-8
<b>MS 3</b>	Medium to slow flow rate; for fine precipitates	97	650	90	5-8
<b>MS 4</b>	Slow flow rate; higher retention efficiency for fine precipitates	84	1200	50	3-5
<b>MS 5</b>	Very slow flow rate for very fine precipitates; common type for wine clarification	75	4000	15	1-2

<sup>1</sup> Filtration Time (secs) for 100ml, prefiltered distilled water (20°C) on a filter surface of 10cm<sup>2</sup> and at a constant pressure of 5cm water gauge

<sup>2</sup> Flow rate of prefiltered, distilled water (20°C) on a 110mm disc at a constant pressure of 5cm water gauge

<sup>3</sup> Nominal rating in liquids

## QUANTITATIVE ASHLESS FILTER PAPERS

MicroScience Quantitative Ashless grades are made of pure cellulose fibres with an ash content of less than 0.01%. The Quantitative Ashless grades are acid washed to ensure high purity for demanding applications.

Grade	Application	Weight (g/m <sup>2</sup> )	Filtration Speed		Porosity <sup>3</sup> (µm)
			(s/100ml) <sup>1</sup>	(ml/min) <sup>2</sup>	
<b>MS 5AF</b>	Fast flow rate; for typical qualitative applications and coarser precipitates	84	70	850	12-15
<b>MS 5AM</b>	Medium flow rate; for finer precipitates and mid range removal efficiency	84	150	375	8-12
<b>MS 5AS</b>	Very slow flow rate for very fine precipitates; very high particle retention efficiency	100	1200	50	3-5
<b>MS 6A</b>	Slow flow rate for fine grain precipitates; high particle retention efficiency	84	2500	25	2-3
<b>MS 7A</b>	Medium to slow flow rate for faster filtration of fine precipitates	84	450	130	5-8

## QUANTITATIVE HARDENED ASHLESS FILTER PAPERS

MicroScience Quantitative Hardened Ashless grades are made of pure cellulose fibres with an alpha cellulose content of almost 100%. The Hardened Ashless grades have an ash content of less than 0.01% and are acid washed to ensure high purity in demanding applications.

Grade	Application	Weight (g/m <sup>2</sup> )	Filtration Speed		Porosity <sup>3</sup> (µm)
			(s/100ml) <sup>1</sup>	(ml/min) <sup>2</sup>	
<b>MS 1HA</b>	Very fast flow rate; for coarse and voluminous precipitates	80	75	800	12-15
<b>MS 2HA</b>	Fast flow rate for typical quantitative applications; medium to coarse precipitates	80	170	350	8-12
<b>MS 3HA</b>	Medium flow rate; higher retention efficiency and finer precipitates	80	260	230	5-8
<b>MS 4HA</b>	Slow flow rates for fine grained precipitates; high particle retention efficiency	80	920	65	2-3

<sup>1</sup> Filtration Time (secs) for 100ml, prefiltered distilled water (20°C) on a filter surface of 10cm<sup>2</sup> and at a constant pressure of 5cm water gauge

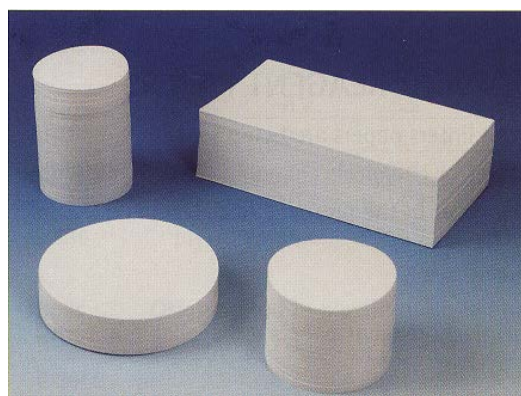
<sup>2</sup> Flow rate of prefiltered, distilled water (20°C) on a 110mm disc at a constant pressure of 5cm water gauge

<sup>3</sup> Nominal rating in liquids

## PHASE SEPARATING FILTER PAPERS

MicroScience Phase Separating filter papers are silicone treated to separate aqueous and organic solutions. Organic solutions will permeate the filter paper with the aqueous solution being retained.

Grade	Standard sizes mm Ø						
<b>MS PS</b>	55	70	90	110	125	150	185



# SYRINGE FILTERS

A unique range of high performance syringe filters for demanding applications

FEATURES	BENEFITS
<ul style="list-style-type: none"><li>• High throughput designs, 13 and 30mm diameters</li></ul>	<ul style="list-style-type: none"><li>• Ideal for a diverse range of applications, including both small and large samples</li></ul>
<ul style="list-style-type: none"><li>• Wide choice of membranes and media including:<ul style="list-style-type: none"><li>- Cellulose Acetate</li><li>- Polyethersulphone (PES)</li><li>- Nylon</li><li>- PTFE</li><li>- PDVF</li><li>- Glass Fibre</li><li>- Polypropylene</li></ul></li></ul>	<ul style="list-style-type: none"><li>• A broad mix of medias, something for every application</li></ul>
<ul style="list-style-type: none"><li>• Specialty membrane media including:<ul style="list-style-type: none"><li>- Cellulose Acetate</li><li>- Polyethersulphone (PES)</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Specifically optimised for critical use, in particular low protein-binding applications</li></ul>
<ul style="list-style-type: none"><li>• Built in pre-filter options</li></ul>	<ul style="list-style-type: none"><li>• High throughputs and lower pressure drop, even for samples with high contaminant loading</li></ul>
<ul style="list-style-type: none"><li>• Polypropylene materials of construction</li></ul>	<ul style="list-style-type: none"><li>• Strong, robust construction, low extractables without adhesives or binders</li></ul>

## Applications include:-

- Sample preparation of aqueous and protein based HPLC solutions
- Low protein binding
- Low extractables where required
- Viscous and proteinaceous solutions
- Probe and hybridisation samples
- General HPLC applications
- Solvent filtration and clarification
- Heavy particulate laden samples
- Sterile air vent applications





## CELLULOSE ACETATE MEMBRANE

MicroScience cellulose acetate syringe filters contain a glass fibre prefilter for lower pressure drop and higher throughput.

### Applications include:

- Sterilise biological fluids, serum or media additives
- Sample preparation of aqueous solutions
- Sample preparation of protein-based HPLC solutions
- High throughput, low binding filter units for nonsterile aqueous filtrations
- Filtration of tissue culture media
- High throughput for sterile or nonsterile clarification of even the most viscous proteinaceous solutions

MicroScience GCS cellulose acetate with a glass fiber prefilter is recommended for filter probe solutions. The MicroScience 30GCS (30 mm) syringe filter contains a 1.0 micron borosilicate glass prefilter with the cellulose acetate membrane, specifically designed to combine high throughputs and maximum sample recovery when filtering or sterilising viscous proteinaceous solutions. The prefilter and membrane are contained in a polypropylene housing without adhesives.

## POLYETHERSULPHONE MEMBRANE

The MicroScience range with PES membranes are available with or without glass fibre prefilters. Benefits include:

- Low protein binding
- Fast flow rates and high throughput
- Hydrophilic media
- Low extractable levels

### Applications

- Sterilise biological fluids, serum or tissue culture media additives
- Sample preparation of aqueous solutions
- High throughput, low binding situations
- Units for sterile aqueous filtrations
- Filter probe and hybridisation solutions to reduce backgrounds
- Sample preparation of protein-based solutions
- General HPLC application

The MicroScience 30mm PES syringe filters, with or without glass fibre prefilters, are designed specifically to provide high throughputs and quick flow rates when filtering or sterilising proteinaceous solutions with very low protein binding.

The prefilter and PES membrane filter are contained in a polypropylene housing which provides bi-directional support for the membrane, to allow for sample injection or aspiration.

## NYLON MEMBRANE

The NP syringe filter is designed for clarification of aqueous and solvent samples in a wide array of analytical and research applications. It is primarily used to filter small aqueous and organic samples with low hold-up volume for direct injection into HPLC sample loop systems. The filtered samples ensure column protection.

The MicroScience nylon membrane is naturally hydrophilic. The nylon membrane contains no wetting agents and yields exceptionally low extractable levels, typically less than 1.5 µg/cm<sup>2</sup>. The MicroScience nylon membrane is pre-rinsed in methanol to completely eliminate any possible extractables which could interfere with results in sensitive applications.

### Applications

- HPLC aqueous and organic sample filtration
- Solvent filtration and clarification
- Exceptionally low extractable level with no wetting agents utilized

The syringe filter housing is made of pure polypropylene. Both materials, nylon and polypropylene, are highly temperature resistant and autoclavable. NP nylon syringe filters are compatible with most organic solvents including acetone, methylene chloride and acetonitrile. All batches are tested to verify filter and housing integrity.

NP nylon syringe filters are available in 13mm and 30mm diameters.

## GLASS FIBRE MEDIA

MicroScience glass fibre syringe filters contain binderless filter media which is biologically inert. Benefits include:

- High dirt holding capacity
- No binder extraction in solvent applications

The glass fibre syringe filter is designed for the clarification of extremely viscous samples that may otherwise clog a membrane filter too quickly or for clarification procedures where a membrane filter is not necessary. The GS syringe filter has high contaminant capacity and very high throughputs.

The borosilicate glass fibre has a low affinity for protein. The nominal 1.0µm pore size media is well suited for cell-media separations prior to sterilisation as well as general filtration for solutions with large particulate loads.

### Applications

- Prefilter viscous serum and tissue culture media samples prior to analysis
- Filtration of cell media separations prior to sterilisation
- Clarify heavy particulate-laden samples
- High dirt loading contaminant capability
- Binderless 100% borosilicate glass fibre filter for purification procedures

The MicroScience 30GS prefilter syringe filter contains a nominal 1.0µm binder free 100% borosilicate glass fibre filter in a polypropylene housing. The syringe filter has high temperature resistance and is autoclavable.

## PVDF MEMBRANE

Hydrophilic PVDF membranes are extremely versatile for a broad range of applications. PVDF membranes have low protein binding properties and are compatible with a very broad range of chemicals and most solvents.

## POLYPROPYLENE MEDIA

MicroScience syringe filters with polypropylene media are suitable for a wide range of applications where longer life and lower pressure drops are beneficial. The all polypropylene syringe filter contains no adhesives.

## PTFE MEMBRANE

PTFE syringe filters are designed to sterilise or filter most aggressive solvents. The PTFE syringe filters are excellent as vent filters, for filtering or degassing solvents or used as wet filters to sterilise air, gases and aerosols.

MicroScience PTFE syringe filters are available in 13mm and 30mm diameters.



## MICROSCIENCE SYRINGE FILTER RANGE

CATALOGUE NUMBER	POLYMER	PORE SIZE	FEATURES
30GCS045AN	Glass Fibre prefilter/ Cellulose Acetate	1.0µm / 0.45µm	non-sterile, PP housing
30GCS020AN	Glass Fibre prefilter/ Cellulose Acetate	1.0µm / 0.2µm	non-sterile, PP housing
30PS045ANMS	Polyethersulphone	0.45µm	non-sterile, PP housing
30PS020ANMS	Polyethersulphone	0.22µm	non-sterile, PP housing
30GPS045AN	Glass Fibre prefilter/ Polyethersulphone	1.0µm / 0.45µm	non-sterile, PP housing
30GPS020AN	Glass Fibre prefilter/ Polyethersulphone	1.0µm / 0.2µm	non-sterile, PP housing
30NP045ANMS	Nylon	0.45µm	non-sterile, PP housing
30NP022ANMS	Nylon	0.20µm	non-sterile, PP housing
30JP045AN	Hydrophobic Teflon (PTFE)	0.45µm	non-sterile, PP housing
25JP045ANMS	Hydrophobic Teflon (PTFE)	0.45µm	non-sterile, PP housing
30PV045ANMS	PVDF	0.45µm	non-sterile, PP housing
30PV020ANMS	PVDF	0.20µm	non-sterile, PP housing
30GS100AN	Glass Fibre prefilter	1.0 µm	non-sterile, PP housing
30AP045ANMS	Polypropylene prefilter/ Polypropylene All Purpose Filter	0.45µm	non-sterile, PP housing
30PP045AN	Polypropylene	0.45µm	non-sterile, PP housing
13NP045ANMS	Nylon	0.45µm	non-sterile, PP housing
13NP022ANMS	Nylon	0.22µm	non-sterile, PP housing
13PV045ANMS	PVDF	0.45µm	non-sterile, PP housing
13PV020ANMS	PVDF	0.20µm	non-sterile, PP housing
13JP045ANMS	Hydrophobic Teflon (PTFE)	0.45µm	non-sterile, PP housing

- First two numbers of the catalogue number indicates syringe filter diameter in (mm)

### PROPERTIES of 30mm SYRINGE FILTERS

Filtration area (cm <sup>2</sup> )	Holdup volume (µL)	Sample volume (mL)	Max operating temp.	Max operating pressure
4.8	<60	<18	45°C	430 kpa (60 psi)

# MICROSCIENCE 35mm DIAMETER SYRINGE FILTERS

Microanalytix has introduced the 35mm diameter syringe filters. Offering end users greater surface area, superior flow and process rates.

*The greater the area, the higher the processing capability*

The 35mm diameter features 77% greater surface area than conventional 30mm diameter syringe filters and an amazing 131% more surface area than conventional 25mm diameter syringe filters.

## Compare the Difference

TYPE	AREA ( cm2 )	AREA FACTOR
MICROSCIENCE ( 35mm $\phi$ )	8.50	2.125
COMPETITIVE ( 30mm $\phi$ )	4.80	1.20
COMPETITIVE ( 25mm $\phi$ )	4.00	1.00

## Hydraflon™ MEMBRANE

Hydraflon features a high flow, durable, all PTFE filter media. The Hydraflon media offers a broad chemical compatibility and provides end users who are using multiple filter medias the opportunity to consolidate their use of different filter types to just one, for all their filtration requirements. The Hydraflon media is suitable for use in a broad range of applications and chemistries.

## PES DUAL LAYER MEMBRANE

The PES DL filter media offers a high flow filter that would be suited to use in a broad range of low extractable applications. The all PES dual layer provides greater through-put without the extractable contamination of the typical glass fibre pre-filter. The PES DL is available with a final porosity of 0.45um.

## GPS MEMBRANE

The glass fibre syringe filter is designed for the clarification of extremely viscous samples that may otherwise clog a membrane filter too quickly and for clarification procedures requiring filtering to 0.45um. The GPS syringe filter has high contaminant capacity and very high throughputs with the added offering of a greater surface area due to the benefits of the 35mm diameter syringe filter housing. The GPS membrane contains the 1.0um borosilicate glass fibre pre-filter protecting the 0.45um PES final membrane filter.

## MICROSCIENCE 13mm & 35mm SYRINGE FILTERS



CATALOGUE NUMBER	POLYMER	PORE SIZE	FEATURES
MS SF13HY022	Hydraflon	0.22um	non-sterile, 13mm PP housing
MS SF13HY045	Hydraflon	0.45um	non-sterile, 13mm PP housing
MS SF35HY022	Hydraflon	0.22um	non-sterile, 35mm PP housing
MS SF35HY045	Hydraflon	0.45um	non-sterile, 35mm PP housing
MS SF35PS045DL	Dual Layer Polyethersulphone	0.45µm	non-sterile, 35mm PP housing
MS SF35GPS045	Glass Fibre prefilter/ Polyethersulphone	1.0µm / 0.45µm	non-sterile, 35mm PP housing

## MICROSCIENCE (MCE) STERILE MEMBRANE FILTERS

MicroScience offers Mixed Ester Membrane filters, sterile 47mm individually wrapped with grids. The MCE sterile membrane filters are available in white or black with grids. Every batch is tested and certified for conformity. The MCE membrane filters are available in the standard individual sterile sleeve or in a roll form to insert into membrane dispensers.

CATALOGUE NUMBER	MEMBRANE TYPE	PORE SIZE/DIAMETER	PACK TYPE
MCE045047SPS	MCE White with Black Grids	0.45µm / 47mm	Individual Sleeves
MCE022047SPS	MCE White with Black Grids	0.22µm / 47mm	Individual Sleeves
MCE045047MPG	MCE White with Black Grids	0.45µm/47mm	Dispenser Roll
MCE045047MPB	MCE Black with Grids	0.45µm/47mm	Dispenser Roll



# MICROSCIENCE CHROMATOGRAPHY & BLOTTING PAPERS

MicroScience chromatography papers are produced from 100% alpha-cellulose cotton linters.

Grade	Weight (g/m <sup>2</sup> )	Capillary Rise mm / 30min	Thickness mm	Absorption	Standard Sizes
<b>MS CH1</b>	195	115	0.35	Fast	46 x 57cm
					20 x 20cm
<b>MS CH2</b>	90	93	0.18	Medium - Fast	10 x 30cm
					58 x 60cm

Catalogue Number	Box Size
<b>MS CH1 46x57cm</b>	100 sheets
<b>MS CH1 20x20cm</b>	100 sheets
<b>MS CH2 10x30cm</b>	100 sheets
<b>MS CH2 58x60cm</b>	100 sheets

## MICROSCIENCE LAMINATED BENCH PAPER

The laminated bench protector paper protects work surfaces from chemical spills, toxic or infectious substances. Spills are quickly absorbed by the surface layer of cellulose material and prevented from penetrating to the work bench surface by a thin coating of polyethylene.

CATALOGUE NUMBER	DIMENSIONS	PACK TYPE
<b>MS 601PE 46X50</b>	46cm Wide 50m Long	Roll
<b>MS 601PE 60X50</b>	60cm Wide 50m Long	Roll
<b>MS 601PE 92X50</b>	92cm Wide 50m Long	Roll



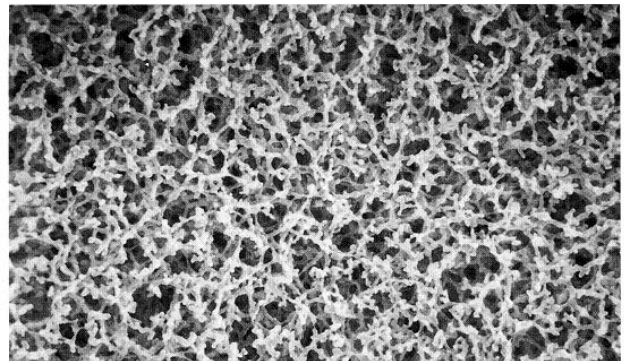
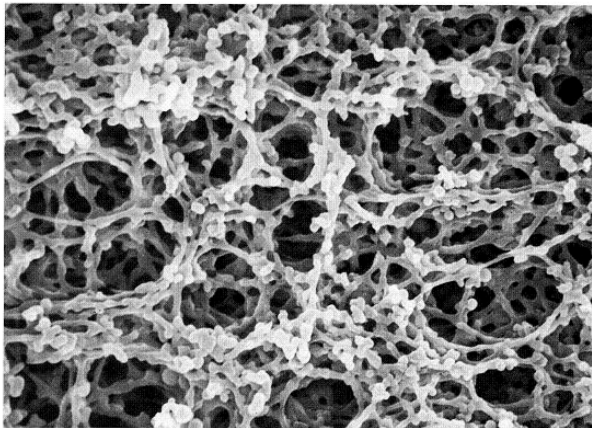
# MICROSCIENCE MEMBRANE FILTERS

A broad range of absolute and nominal membrane media has been developed and tested in local markets to meet the needs of a wide variety of applications.

Utilised over many years in Australia and New Zealand, the MicroScience membrane range has been demonstrated to provide consistent and reliable performance in the most demanding applications.

The very broad range of membranes offered include:

- Cellulose Acetate
- Mixed Cellulose Ester
- Polyethersulphone
- Nylon
- PTFE
- Polycarbonate
- Polyester
- Polypropylene





# Filter Membrane Selection Chart

Material	Description	Pore Size (µm)
Cellulose Acetate	Internally Supported Cellulose Acetate	0.22 – 5.0
Mixed Cellulose Esters	Unsupported MCE	0.1 – 8.0
Nylon	Internally Supported Nylon	0.22 – 20.0
Polycarbonate	Polycarbonate	0.01 – 20.0
Polyester	Polyester	0.03 – 10.0
Polypropylene	Polypropylene Prefilters	0.45, 0.8, 1.2
	Polypropylene Filter	0.1, 0.22, 0.45
Polyethersulphone	Polyethersulphone	0.22 – 5.0
Teflon	PTFE laminated onto a Polypropylene Support	0.22, 0.45, 1.0
	Pure PTFE (no support)	0.22, 0.45, 1.0

Features	Application
<ul style="list-style-type: none"> <li>■ Lowest Binding Material Available</li> <li>■ Highest Throughput</li> <li>■ Strength and Dimension Stability</li> <li>■ Uniform Pore Structure</li> <li>■ Hydrophilic</li> </ul>	<ul style="list-style-type: none"> <li>■ Tissue Culture Media Sterilisation</li> <li>■ Protein and Enzyme Filtration, Sterilisation</li> <li>■ Biological Fluid Filtration, Sterilisation</li> </ul>
<ul style="list-style-type: none"> <li>■ Consistent Flow Rates</li> <li>■ High Throughputs</li> <li>■ Uniform Pore Structure</li> <li>■ Hydrophilic</li> </ul>	<ul style="list-style-type: none"> <li>■ Aqueous Filtration</li> <li>■ Microbiological Analysis</li> <li>■ Sterility Testing</li> <li>■ Gravimetric Analysis With Ashing Technique</li> <li>■ Particulate Analysis</li> </ul>
<ul style="list-style-type: none"> <li>■ Naturally Hydrophilic</li> <li>■ Wide Chemical Compatibility Range</li> <li>■ Extremely Low Extractables</li> <li>■ Strength and Dimensional Stability</li> </ul>	<ul style="list-style-type: none"> <li>■ Sterilisation, Clarification of Aqueous and Organic Solvent Solutions</li> <li>■ HPLC Sample Preparation</li> </ul>
<ul style="list-style-type: none"> <li>■ Smooth Flat Surface</li> <li>■ Precisely Controlled Cylindrical Pores</li> <li>■ Narrow Pore Size Distribution</li> <li>■ Transparent</li> </ul>	<ul style="list-style-type: none"> <li>■ Chemotaxis</li> <li>■ Accurate Separation of Sample by Size</li> <li>■ Epifluorescence</li> <li>■ Cytology</li> <li>■ Cell Biology</li> <li>■ Microscopy</li> </ul>
<ul style="list-style-type: none"> <li>■ Similar to PCTE with Better Solvent Resistance</li> </ul>	
<ul style="list-style-type: none"> <li>■ Chemically and Biologically Inert</li> <li>■ Low Fibre Release</li> <li>■ More Defined Pore Size and Greater Retention Efficiency Than Glass Prefilters</li> </ul>	<ul style="list-style-type: none"> <li>■ Prefilter to Extend Final Filter Life</li> <li>■ Final Filter for Noncritical Filtrations</li> <li>■ Prefiltering Solvents and Acids</li> </ul>
<ul style="list-style-type: none"> <li>■ Chemically and Biologically Inert</li> <li>■ Wide Chemical Compatibility Range</li> <li>■ Extremely Low Extractables</li> </ul>	<ul style="list-style-type: none"> <li>■ Sterilisation, Clarification of Organic Solvent Solutions</li> <li>■ HPLC Sample Preparation</li> </ul>
<ul style="list-style-type: none"> <li>■ Low Protein Binding</li> <li>■ Low Extractables</li> <li>■ Autoclavable</li> <li>■ Wide Chemical Compatibility Range</li> <li>■ Strength and Dimensional Stability</li> </ul>	<ul style="list-style-type: none"> <li>■ Tissue Culture Media Sterilisation</li> <li>■ Protein and Enzyme Filtration, Sterilisation</li> <li>■ Biological Fluid Filtration, Sterilisation</li> </ul>
<ul style="list-style-type: none"> <li>■ Naturally Hydrophobic</li> <li>■ Compatible with Strong Acids and Aggressive Solvents</li> <li>■ Improved Durability and Handling</li> </ul>	<ul style="list-style-type: none"> <li>■ Filtration of Strong Acids and Aggressive Solvents</li> <li>■ Venting Applications</li> </ul>
<ul style="list-style-type: none"> <li>■ Naturally Hydrophobic</li> <li>■ Compatible with High Temperatures, Strong Acids and Aggressive Solvents</li> <li>■ Chemically and Biologically Inert</li> </ul>	<ul style="list-style-type: none"> <li>■ Filtration of High Temperature Acids and Solvents</li> </ul>

## Chemical Compatibility Chart for General Laboratory Filtration Products

Use this chart as a reference when determining the compatibility of membrane media and filter units with commonly used chemicals.

When using a filter unit or holder, consider the resistance properties of all materials, including filter media, which will come in contact with the solution.

**Because of variations in temperature, concentration, time, pressure and other variables, you should test all media and holder components in order to establish exact parameters.**

### KEY

R = Recommended

L = Limited Resistance (testing before use is recommended)

N = Not Recommended

		Filter Media									Housing Materials				
		Mixed Cellulose Ester	Acetate	Nylon	Polycarbonate	PES	PTFE (Laminated)	PTFE (Unlaminated)	Polypropylene	Glass Fiber	Modified Acrylic	Nylon	Polypropylene	Polystyrene	Polyester
ACIDS	Acetic Acid 1%	R	R	R	R	R	R	R	R	R	N	L	R	R	R
	Acetic Acid 5%	R	R	R	R	R	R	R	R	R	N	N	R	R	R
	Acetic Acid, Glacial	N	N	N	L	R	R	R	R	N	N	N	R	R	N
	Boric Acid	R	R	L	R	R	R	R	R	R	N	N	R	R	R
	Hydrochloric, Conc	N	N	N	R	R	R	R	R	R	N	N	R	R	R
	Hydrochloric, 6N	N	L	N	R	R	R	R	R	N	N	N	R	R	R
	Hydrofluoric	N	N	N	R	R	R	R	R	L	N	N	R	R	R
	Nitric Acid, Conc.	N	N	N	R	N	R	R	N	R	N	N	N	N	N
	Nitric Acid, 6N	R	L	N	R	L	R	R	L	N	N	N	N	L	L
	Sulfuric Acid, Conc.	N	N	N	N	N	R	R	N	N	N	N	R	N	N
	Sulfuric Acid, 6N	R	L	N	R	L	R	R	L	N	N	N	R	N	N
ALCOHOLS	Amyl	N	R	R	R	N	R	R	R	R	N	R	R	N	R
	Benzyl	R	L	R	R	N	R	R	R	R	R	R	R	N	R
	Butyl	R	R	R	R	R	R	R	R	R	R	R	R		R
	Butyl Cellosolve	N	L	R	L	R	R	R	R	R					
	Ethyl, >80%	L	R	R	R	R	R	R	R	R	L	R	R	N	R
	Ethyl, <80%	R	R	R	R	R	R	R	R	R	L	R	R	L	R
	Ethylene Glycol	L	R	R	R	R	R	R	R	R					R
	Glycerine (Glycerol)	R	R	R	R	R	R	R	R	R					R
	Isobutyl	R	R	R	R	R	R	R	R	N	R	R	R	R	R
	Isopropanol	R	R	R	R	R	R	R	R	R					R
	Methanol	N	R	R	R	R	R	R	R	R	R	R	R	R	R
	Methyl Cellosolve	L	L	R	N	R	R	R	R	R					
	Propanol	R	R	R	R	R	R	R	R	R					
	BASES	Ammonium Hydroxide, 6N	R	N	N	N	R	R	R	R	N	R	N	R	R
Potassium Hydroxide, 6N		N	N	R	N	R	R	R	R	L					
Sodium Hydroxide, 6N		N	N	N	N	R	R	R	R	N	R	N	R	R	N
SOLVENTS	Acetone	N	N	R	L	N	R	R	R	R	N	R	R	N	R
	Acetonitrile	N	N	R	L	R	R	R	R	R	N	R	L	N	
	Amyl Acetate	N	L	R	R	R	R	R	R	R	N	R	R	N	L
	Aniline	N	N	R	N	L	R	R							N
	Benzene	R	R	R	L	R	L	R	L	R	N	L	L	N	R
	Bromoform	R	N	R	R	N	R	R	R	R					



**KEY**

R = Recommended

L = Limited Resistance (testing before use is recommended)

N = Not Recommended

		Filter Media									Housing Materials					
		Mixed Cellulose Ester	Acetate	Nylon	Polycarbonate	PES	PTFE (Laminated)	PTFE (Unlaminated)	Polypropylene	Glass Fiber	Modified Acrylic	Nylon	Polypropylene	Polystyrene	Polyester	
KEY	R = Recommended															
	L = Limited Resistance (testing before use is recommended)															
	N = Not Recommended															
	SOLVENTS	Butyl Acetate	N	L	N	R	R	R	R	R	R	N	R	R	N	R
		Carbon Tetrachloride	R	L	R	R	R	L	R	L	R	N	L	L	N	R
		Cellosolve	N	R	R	R	N	R	R	R	R	N		L		N
		Chloroform	R	N	R	R	N	L	R	L	R	N	L	L	N	R
		Cyclohexane	R	R	R	R	R	R	R	R	R	N		R		R
		Cyclohexanone	N	N	R	L	N	R	R	R	N	N	R	R	N	R
		Diethyl Acetamide	N	N	R	N	N	R	R	N	R	N	R	R	N	
		Dimethyl Formamide	N	N	R	N	N	R	R	R	R	N	R	R	N	L
		Dimethyl Sulfoxide (DMSO)	N	N	L	N	N	R	R	R	R	N	R	R	N	
		Dioxane	N	N	R	N	N	L	R	R	R	N	R	R	N	L
		Ethyl Ether	L	L	R	R	L	R	R	R	R	N	R	R	N	L
		Ethylene Dichloride	L	L	R	R	N	R	R	R						L
		Formaldehyde	N	L	R	R	R	R	R	R	R	N	R	R	N	R
		Freon TF	R	R	R	R	R	R	R	R	R	L	R	R	N	L
		Gasoline	R	R	R	R	R	R	R	R	R	N	R	R	N	R
		Hexane	R	R	R	R	R	R	R	R	R	N	R	R	N	R
		Isopropyl Acetate	N	N	R	R	R	R	R	R	N	N	R	R	N	L
		Kerosene	R	R	R	R	R	R	R	R	R	N	R	R	N	R
		Methyl Acetate	N	N	R	N	N	R	R	R	R	N	R	R	N	L
		Methyl Ethyl Ketone (MEK)	N	N	R	L	N	R	R	R	R	N	R	R	N	R
		Methyl Isobutyl Ketone	N	N	R	L	N	R	R	R	N	N	R	R	N	L
		Methylene Chloride	N	N	L	N	N	R	R	R	R	N	L	L	N	N
		Nitrobenzene	N	N	R	R	N	R	R	R	N	N	R	R	N	L
		Pentane	R	R	R	R	R	R	R	L	R	N	R	L	N	R
		Perchloroethylene	R	R	R	R	N	R	R	R	N	N	R	R	N	L
		Pyridine	N	N	R	R	N	R	R	R	R	N	R	R	N	L
		Tetrahydrofuran	N	N	L	N	N	L	R	L	N	N	L	L	N	R
		Toluene	R	R	R	L	N	R	R	L	R	N	L	L	N	R
		Trichlorethylene	R	R	R	N	N	L	R	R	N	N	R	R	N	R
Trichloroethane		R	L	R	N	N	R	R	R	R	N	R	R	N	N	
Triethylamine		R	R	R	L	N	R	R	R	R					R	
Xylene		R	R	R	R	N	R	R	L	R	N	L	L	N	L	
MISCELLANEOUS	Cottonseed Oil	R	R	R	R	R	R	R	R	R					R	
	Hydrogen Peroxide (30%)	R	R	R	R	R	R	R	R	R		R	R		R	
	Kodak KMER, FTFR	N	N	R	R	N	R	R	R	N	N	R	R	N	R	
	Peanut Oil	R	R	R	R	R	R	R	R	R					R	
	Petroleum	R	R	R	R	R	R	R	R	R					R	
	Sesame Oil	R	R	R	R	R	R	R	R	R					R	
	Shipley (AS-111, 340, 1350)	N	N	R	R	N	R	R	R	N	N	R	R	N	R	
	Silicone	R	R	R	R	R	R	R	R	R						
	Turpentine	R	R	R	R	R	R	R	R	R					R	
	Waycoat 59	N	N	R	R	N	R	R	R	N	N	R	R	N	R	



# PES Membrane

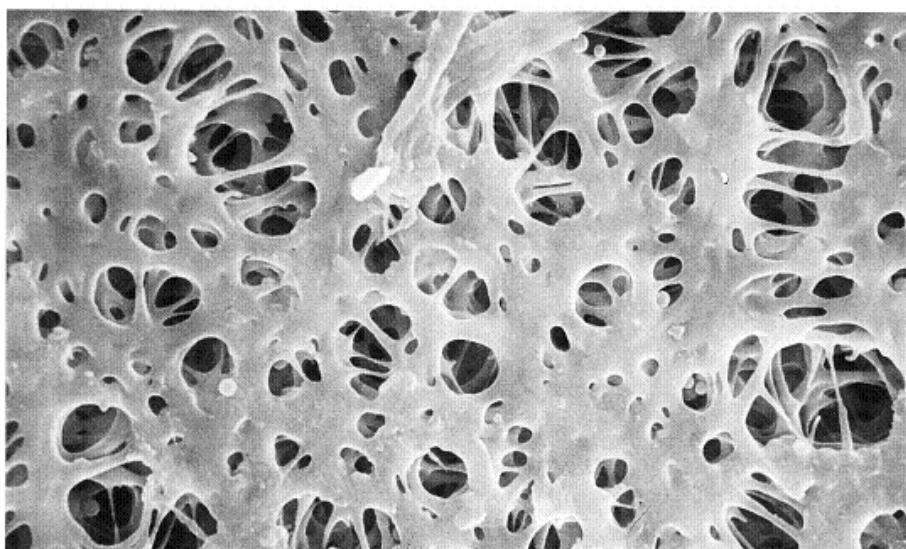
PES membrane filters are composed of polyethersulphone and manufactured within a tight specification range to ensure a uniform pore structure for low binding applications where reliable fast flow rates and high throughputs are required. PES filters are hydrophilic and can withstand high temperatures 135°C (275°F) without membrane degradation as required for autoclaving applications.

PES filters are inert which provide extremely low extractable levels in critical sterilisation applications such as protein and enzyme filtrations, tissue culture media sterilisation, biological fluid filtration and other sterilisation applications where maximum throughputs and fast flow rates are the critical factors.

PES filters are available in a wide range of disc diameters, pore sizes and disposable devices.

## Applications

- Tissue Culture Media Sterilisation
- Protein and Enzyme Sterilisation
- Biological Fluid Sterilisation
- pH Range: 1-14



## ORDERING INFORMATION

Dia.	Surface	Cat. No.	Qty/Pk	Dia.	Surface	Cat. No.	Qty/Pk
<b>0.22µm Pore Size, White</b>				<b>0.80µm Pore Size, White</b>			
13 mm	Plain	S02SP01300	100	13 mm	Plain	S8SP01300	100
25 mm	Plain	S02SP02500	100	25 mm	Plain	S8SP02500	100
47 mm	Plain	S02SP04700	100	47 mm	Plain	S8SP04700	100
90 mm	Plain	S02SP09025	25	90 mm	Plain	S8SP09025	25
142 mm	Plain	S02SP14225	25	142 mm	Plain	S8SP14225	25
293 mm	Plain	S02SP29325	25	293 mm	Plain	S8SP29325	25
<b>0.45µm Pore Size, White</b>				<b>1.2µm Pore Size, White</b>			
13 mm	Plain	S04SP01300	100	13 mm	Plain	S12SP01300	100
25 mm	Plain	S04SP02500	100	25 mm	Plain	S12SP02500	100
47 mm	Plain	S04SP04700	100	47 mm	Plain	S12SP04700	100
90 mm	Plain	S04SP09025	25	90 mm	Plain	S12SP09025	25
142 mm	Plain	S04SP14225	25	142 mm	Plain	S12SP14225	25
293 mm	Plain	S04SP29325	25	293 mm	Plain	S12SP29325	25
<b>0.65µm Pore Size, White</b>				<b>5.0µm Pore Size, White</b>			
13 mm	Plain	S06SP01300	100	13 mm	Plain	S50SP01300	100
25 mm	Plain	S06SP02500	100	25 mm	Plain	S50SP02500	100
47 mm	Plain	S06SP04700	100	47 mm	Plain	S50SP04700	100
90 mm	Plain	S06SP09025	25	90 mm	Plain	S50SP09025	25
142 mm	Plain	S06SP14225	25	142 mm	Plain	S50SP14225	25
293 mm	Plain	S06SP29325	25	293 mm	Plain	S50SP29325	25

- **Contact us for our range of filter holders, filtration equipment and accessories**



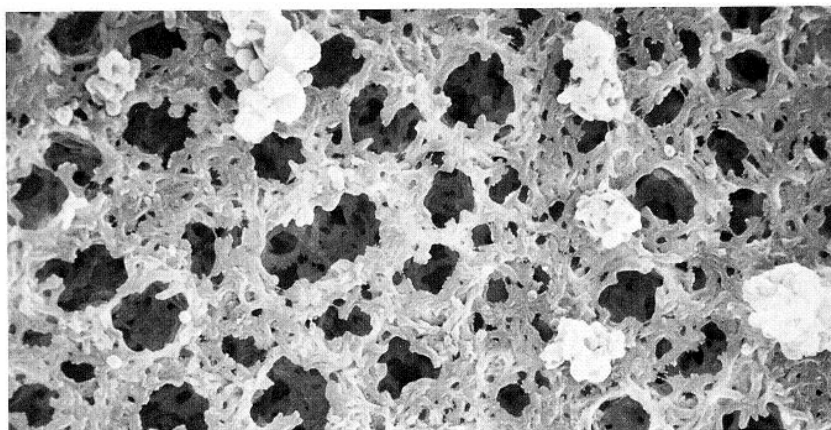
# Nylon Membrane

Nylon membrane filters are fast becoming the “standard” filter material due to their wide chemical compatibility range and naturally hydrophilic characteristics.

Nylon filters can be used to filter all aqueous and the majority of solvent solutions.

Nylon filters are manufactured using a unique impregnation process that eliminates cracking, tearing, breaking and distortion when handled or creased. Each membrane filter has unequalled dimensional stability even after autoclaving and is completely unaffected by temperatures up to 180°C (356°F) or steam sterilising. The exclusive impregnation process results in a nylon filter with uniform pore sizes and consistent flow rates for continuously reliable performance.

Since nylon filters are naturally hydrophilic; wetting agents are not used during manufacturing, resulting in a very low level of extractables. Through gravimetric analysis, it has been found that nylon filters have an extractable level of less than 0.0015 mg/cm<sup>2</sup> making them ideally suited for HPLC solvent filtration, HPLC sample preparation, mobile-phase filtration and critical aqueous applications.



Dia.	Surface	Cat. No.	Qty/Pk	Dia.	Surface	Cat. No.	Qty/Pk
<b>0.10µm Pore Size, White</b>				<b>0.80µm Pore Size, White</b>			
13 mm	Plain	R01SP01300	100	13 mm	Plain	R08SP01300	100
25 mm	Plain	R01SP02500	100	25 mm	Plain	R08SP02500	100
47 mm	Plain	R01SP04700	100	47 mm	Plain	R08SP04700	100
90 mm	Plain	R01SP09025	25	90 mm	Plain	R08SP09025	25
142 mm	Plain	R01SP14225	25	142 mm	Plain	R08SP14225	25
293 mm	Plain	R01SP29325	25	293 mm	Plain	R08SP29325	25
<b>0.22µm Pore Size, White</b>				<b>1.2µm Pore Size, White</b>			
13 mm	Plain	R02SP01300	100	13 mm	Plain	R12SP01300	100
25 mm	Plain	R02SP02500	100	25 mm	Plain	R12SP02500	100
47 mm	Plain	R02SP04700	100	47 mm	Plain	R12SP04700	100
47 mm	Grid*	R02SG04700	100	90 mm	Plain	R12SP09025	25
90 mm	Plain	R02SP09025	25	142 mm	Plain	R12SP14225	25
142 mm	Plain	R02SP14225	25	293 mm	Plain	R12SP29325	25
293 mm	Plain	R02SP29325	25	<b>5.0µm Pore Size, White</b>			
<b>0.45µm Pore Size, White</b>				13 mm	Plain	R50SP01300	100
13 mm	Plain	R04SP01300	100	25 mm	Plain	R50SP02500	100
25 mm	Plain	R04SP02500	100	47 mm	Plain	R50SP04700	100
47 mm	Plain	R04SP04700	100	90 mm	Plain	R50SP09025	25
47 mm	Grid*	R04SG04700	100	142 mm	Plain	R50SP14225	25
90 mm	Plain	R04SP09025	25	293 mm	Plain	R50SP29325	25
142 mm	Plain	R04SP14225	25	<b>10.0µm Pore Size, White</b>			
293 mm	Plain	R04SP29325	25	13 mm	Plain	R99SP01300	100
<b>0.65µm Pore Size, White</b>				25 mm	Plain	R99SP02500	100
13 mm	Plain	R06SP01300	100	47 mm	Plain	R99SP04700	100
25 mm	Plain	R06SP02500	100	90 mm	Plain	R99SP09025	25
47 mm	Plain	R06SP04700	100	142 mm	Plain	R99SP14225	25
90 mm	Plain	R06SP09025	25	293 mm	Plain	R99SP29325	25
142 mm	Plain	R06SP14225	25	<b>20.0µm Pore Size, White</b>			
293 mm	Plain	R06SP29325	25	13 mm	Plain	R22SP01300	100
				25 mm	Plain	R22SP02500	100
				47 mm	Plain	R22SP04700	100
				90 mm	Plain	R22SP09025	25
				142 mm	Plain	R22SP14225	25
				293 mm	Plain	R22SP29325	25

## Applications

- Aqueous and Solvent Filtration , Sterilisation
- HPLC Sample Preparation
- pH Range: 3-12

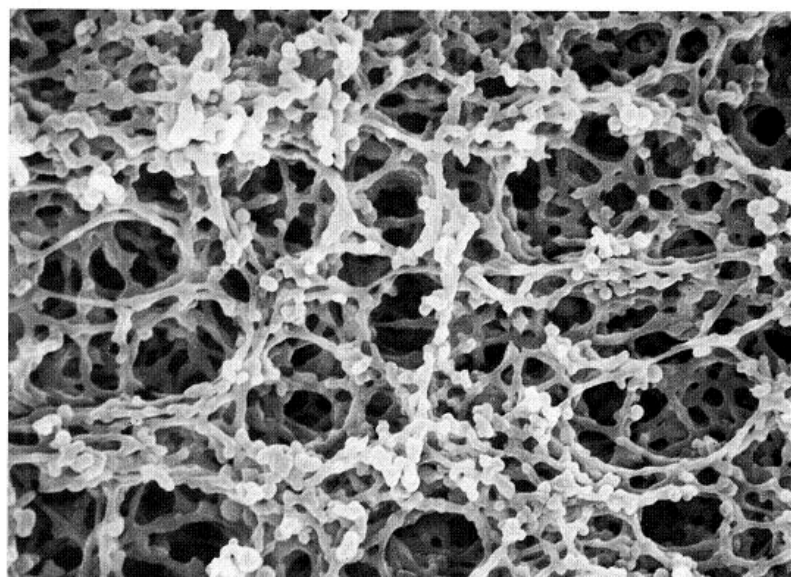


# Acetate Membrane

Cellulose Acetate membrane filters are composed of pure cellulose acetate modified to offer researchers the lowest binding filters available. Due to the extremely low binding characteristics, these filters provide higher throughputs than competitive offerings and reduce filter changes when filtering proteinaceous solutions.

Because of their unique strength and extremely low binding characteristics, acetate filters are ideal for protein and enzyme filtrations, tissue culture media sterilisation, cold sterilisation, biological fluid filtration and other filtration applications where maximum recovery of proteins is critical.

Acetate filters are manufactured using a unique impregnation process that eliminates cracking, tearing, breaking and distortion when handled or creased. Each filter has unequalled dimensional stability after autoclaving or steam sterilising and is completely unaffected by temperatures up to 135°C (275°F). The exclusive impregnation process results in an acetate filter which has a burst strength of 900 KPa (130 psi), uniform pore size and consistent flow rates for reliable performance.



## Applications

- Tissue Culture Media Sterilisation
- Protein and Enzyme Sterilisation
- Biological Fluid Sterilisation
- pH Range: 4-8

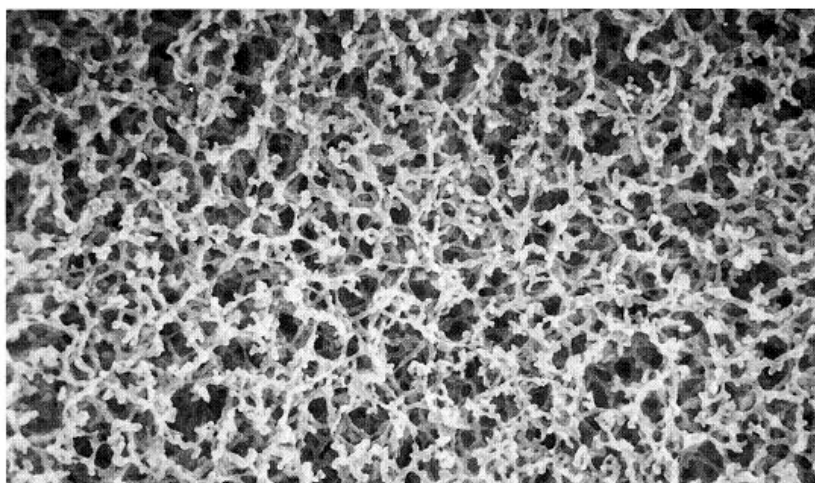
Dia.	Surface	Cat. No.	Qty/Pk	Dia.	Surface	Cat. No.	Qty/Pk
<b>0.22µm Pore Size, White</b>				<b>0.80µm Pore Size, White</b>			
13 mm	Plain	A02SP01300	100	13 mm	Plain	A08SP01300	100
25 mm	Plain	A02SP02500	100	25 mm	Plain	A08SP02500	100
47 mm	Plain	A02SP04700	100	47 mm	Plain	A08SP04700	100
90 mm	Plain	A02SP09025	25	90 mm	Plain	A08SP09025	25
142 mm	Plain	A02SP14225	25	142 mm	Plain	A08SP14225	25
293 mm	Plain	A02SP29325	25	293 mm	Plain	A08SP29325	25
<b>0.45µm Pore Size, White</b>				<b>1.2µm Pore Size, White</b>			
13 mm	Plain	A04SP01300	100	13 mm	Plain	A12SP01300	100
25 mm	Plain	A04SP02500	100	25 mm	Plain	A12SP02500	100
47 mm	Plain	A04SP04700	100	47 mm	Plain	A12SP04700	100
90 mm	Plain	A04SP09025	25	90 mm	Plain	A12SP09025	25
142 mm	Plain	A04SP14225	25	142 mm	Plain	A12SP14225	25
293 mm	Plain	A04SP29325	25	293 mm	Plain	A12SP29325	25
<b>0.65µm Pore Size, White</b>				<b>5.0µm Pore Size, White</b>			
13 mm	Plain	A06SP01300	100	13 mm	Plain	A50SP01300	100
25 mm	Plain	A06SP02500	100	25 mm	Plain	A50SP02500	100
47 mm	Plain	A06SP04700	100	47 mm	Plain	A50SP04700	100
90 mm	Plain	A06SP09025	25	90 mm	Plain	A50SP09025	25
142 mm	Plain	A06SP14225	25	142 mm	Plain	A50SP14225	25
293 mm	Plain	A06SP29325	25	293 mm	Plain	A50SP29325	25

# Mixed Cellulose Ester (MCE) Membrane

MCE filters are composed of inert cellulose nitrate and cellulose acetate polymers. The uniform microporous structure of these filters provide the fastest flow rates and highest throughput available in membrane filter. Because they are biologically inert, MCE filters are ideal for a wide range of clarification, sterilisation, and analytical applications such as microbiological analysis, clarification or sterilisation of aqueous solutions, industrial hygiene applications and particulate-matter analysis.

For gravimetric analysis using ashing techniques, MCE filters yield a residue of less than 0.045% of their initial weight. They are hydrophilic with a noncytotoxic wetting agent extractable level of less than 4% of their weight.

MCE filters are available in eight pore sizes ranging from 0.1µm to 8.0µm. Standard disc diameters are available from 13mm to 293mm in white or black with plain or gridded surfaces. These filters are autoclavable at 121°C (250°F) for 20 minutes.



## Applications

- Aqueous Filtration, Sterilisation
- Sterility Testing
- Microbiological Analysis
- pH Range: 4-10

Dia.	Surface	Cat. No.	Qty/Pk	Dia.	Surface	Cat. No.	Qty/Pk
<b>0.10µm Pore Size, White</b>				<b>0.80µm Pore Size, White</b>			
13 mm	Plain	E01WP01300	100	13 mm	Plain	E08WP01300	100
25 mm	Plain	E01WP02500	100	25 mm	Plain	E08WP02500	100
47 mm	Plain	E01WP04700	100	47 mm	Plain	E08WP04700	100
90 mm	Plain	E01WP09025	25	47 mm	Grid	E08WG04700	100
142 mm	Plain	E01WP14225	25	90 mm	Plain	E08WP09025	25
293 mm	Plain	E01WP29325	25	142 mm	Plain	E08WP14225	25
<b>0.22µm Pore Size, White</b>				293 mm	Plain	E08WP29325	25
13 mm	Plain	E02WP01300	100	<b>1.2µm Pore Size, White</b>			
25 mm	Plain	E02WP02500	100	13 mm	Plain	E12WP01300	100
47 mm	Plain	E02WP04700	100	25 mm	Plain	E12WP02500	100
47 mm	Grid	E02WG04700	100	47 mm	Plain	E12WP04700	100
90 mm	Plain	E02WP09025	25	90 mm	Plain	E12WP09025	25
100 mm	Plain	E02WP10025	25	142 mm	Plain	E12WP14225	25
142 mm	Plain	E02WP14225	25	293 mm	Plain	E12WP29325	25
293 mm	Plain	E02WP29325	25	<b>5.0µm Pore Size, White</b>			
<b>0.45µm Pore Size, White</b>				13 mm	Plain	E50WP01300	100
13 mm	Plain	E04WP01300	100	25 mm	Plain	E50WP02500	100
25 mm	Plain	E04WP02500	100	47 mm	Plain	E50WP04700	100
47 mm	Plain	E04WP04700	100	90 mm	Plain	E50WP09025	25
47 mm	Grid	E04WG04700	100	142 mm	Plain	E50WP14225	25
50 mm	Plain	E04WP05000	100	293 mm	Plain	E50WP29325	25
90 mm	Plain	E04WP09025	25	<b>8.0µm Pore Size, White</b>			
100 mm	Plain	E04WP10025	25	13 mm	Plain	E80WP01300	100
142 mm	Plain	E04WP14225	25	25 mm	Plain	E80WP02500	100
293 mm	Plain	E04WP29325	25	47 mm	Plain	E80WP04700	100
<b>0.65µm Pore Size, White</b>				90 mm	Plain	E80WP09025	25
13 mm	Plain	E06WP01300	100	142 mm	Plain	E80WP14225	25
25 mm	Plain	E06WP02500	100	293 mm	Plain	E80WP29325	25
47 mm	Plain	E06WP04700	100				
47 mm	Grid	E06WG04700	100				
90 mm	Plain	E06WP09025	25				
142 mm	Plain	E06WP14225	25				
293 mm	Plain	E06WP29325	25				



# PTFE Membrane

PTFE membrane filters are available with and without a laminated polypropylene support, PTFE. Inherently hydrophobic, PTFE will not absorb moisture from air or gases, making it ideal for venting applications, phase separations and aerosol samplings.

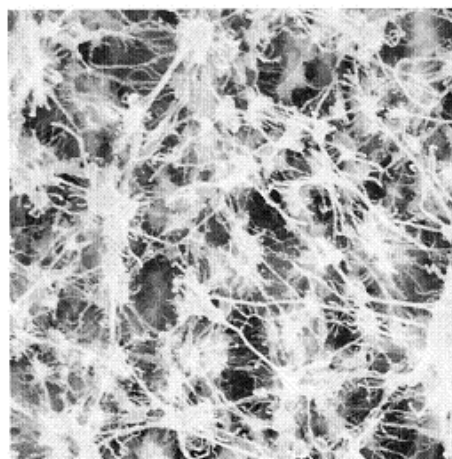
## Laminated

Laminated PTFE filters are made of a polytetrafluoroethylene polymer laminated to a polypropylene support for improved durability and easy handling. These filters are chemically compatible with strong acids and most aggressive solvents such as alcohols. Laminated PTFE filters can also be used to filter aqueous solutions when prewetted with methanol. They are autoclavable up to 130°C (260°F). 175µm thick.

Dia.	Cat. No.	Qty/Pk
<b>0.22µm Pore Size</b>		
13 mm	F02LP01300	100
25 mm	F02LP02500	100
47 mm	F02LP04700	100
90 mm	F02LP09025	25
142 mm	F02LP14225	25
293 mm	F02LP29325	25
<b>0.45µm Pore Size</b>		
13 mm	F05LP01300	100
25 mm	F05LP02500	100
47 mm	F05LP04700	100
90 mm	F05LP09025	25
142 mm	F05LP14225	25
293 mm	F05LP29325	25
<b>1.0µm Pore Size</b>		
13 mm	F10LP01300	100
25 mm	F10LP02500	100
37 mm	F10LP03700	100
47 mm	F10LP04700	100
90 mm	F10LP09025	25
142 mm	F10LP14225	25
293 mm	F10LP29325	25

## Applications

- Aggressive Solvent and Acid Sterilisation, Clarification
- Air Venting
- pH Range: 1-14



## Unlaminated

Unlaminated filters are compatible with strong acids, aggressive solvents and high temperatures which can soften the polypropylene support of laminated PTFE. These filters are ideal for applications that require high temperatures and strong acids, without adding particulates to the filtrate. Stable up to 260°C (500°F). 50µm thick (1.0µm is 100µm thick).

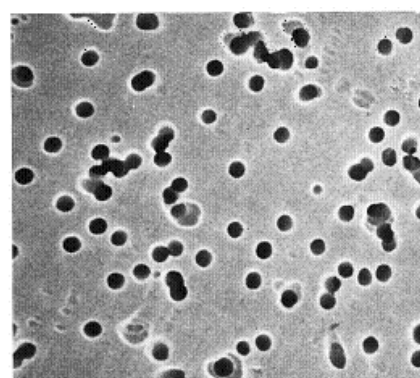
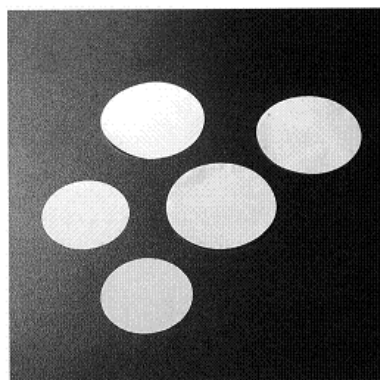
Dia.	Cat. No.	Qty/Pk
<b>0.22µm Pore Size</b>		
13 mm	F02UP01300	100
25 mm	F02UP02500	100
47 mm	F02UP04700	100
90 mm	F02UP09025	25
142 mm	F02UP14225	25
293 mm	F02UP29325	25
<b>0.45µm Pore Size</b>		
13 mm	F05UP01300	100
25 mm	F05UP02500	100
47 mm	F05UP04700	100
90 mm	F05UP09025	25
142 mm	F05UP14225	25
293 mm	F05UP29325	25
<b>1.0µm Pore Size</b>		
13 mm	F10UP01300	100
25 mm	F10UP02500	100
47 mm	F10UP04700	100
90 mm	F10UP09025	25
142 mm	F10UP14225	25
293 mm	F10UP29325	25

# Polycarbonate Membrane

Polycarbonate (PCTE) membrane filters are clear, thin, microporous filters with a smooth flat surface and precisely controlled cylindrical pores.

The precise pore size of the PCTE filters is achieved by exposing polycarbonate film to charged particles in a nuclear reactor which leaves tracks in the film. The pore density is controlled by the duration of time that the polycarbonate film is exposed to the charged particles. The tracks on the polycarbonate film are then dissolved with a chemical solution to form cylindrical pores. Pore sizes are controlled by varying the temperature, strength and exposure time of the etching solution.

This filter offers several benefits when viewing surface samples with optical or electron microscopes.



PCTE filters eliminate the clearing steps in microscopy required when using mixed esters of cellulose filters. The unique manufacturing process results in an extremely narrow pore size distribution for accurate separation of samples by size. The PCTE filters do not stain, minimising background interference.

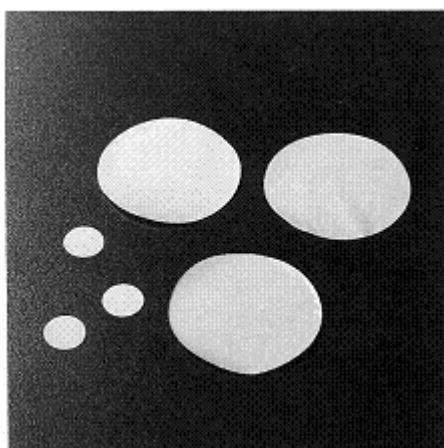
## Applications

- Chemotaxis
- Microscopy
- Cytology
- pH Range: 4-8

These filters are autoclavable with a maximum operating temperature of 140°C (284°F). Filters are 6-11 microns thick, depending on pore size.

Dia.	Cat. No.	Qty/Pk	Dia.	Cat. No.	Qty/Pk	Dia.	Cat. No.	Qty/Pk
<b>0.01µm Pore Size</b>			<b>0.4µm Pore Size</b>			<b>3.0µm Pore Size</b>		
13 mm	KN1CP01300	100	13 mm	K04CP01300	100	13 mm	K30CP01300	100
25 mm	KN1CP02500	100	25 mm	K04CP02500	100	25 mm	K30CP02500	100
47 mm	KN1CP04700	100	47 mm	K04CP04700	100	47 mm	K30CP04700	100
<b>0.03µm Pore Size</b>			90 mm	K04CP09030	30	90 mm	K30CP09030	30
13 mm	KN3CP01300	100	142 mm	K04CP14220	20	142 mm	K30CP14220	20
25 mm	KN3CP02500	100	293 mm	K04CP29320	20	293 mm	K30CP29320	20
47 mm	KN3CP04700	100	<b>0.6µm Pore Size</b>			<b>5.0µm Pore Size</b>		
<b>0.05µm Pore Size</b>			13 mm	K06CP01300	100	13 mm	K50CP01300	100
13 mm	KN5CP01300	100	25 mm	K06CP02500	100	25 mm	K50CP02500	100
25 mm	KN5CP02500	100	47 mm	K06CP04700	100	47 mm	K50CP04700	100
47 mm	KN5CP04700	100	90 mm	K06CP09030	30	90 mm	K50CP09030	30
90 mm	KN5CP09030	30	142 mm	K06CP14220	20	142 mm	K50CP14220	20
142 mm	KN5CP14220	20	293 mm	K06CP29320	20	293 mm	K50CP29320	20
293 mm	KN5CP29320	20	<b>0.8µm Pore Size</b>			<b>8.0µm Pore Size</b>		
<b>0.08µm Pore Size</b>			13 mm	K08CP01300	100	13 mm	K80CP01300	100
13 mm	KN8CP01300	100	25 mm	K08CP02500	100	25 mm	K80CP02500	100
25 mm	KN8CP02500	100	47 mm	K08CP04700	100	47 mm	K80CP04700	100
47 mm	KN8CP04700	100	90 mm	K08CP09030	30	<b>10.0µm Pore Size</b>		
90 mm	KN8CP09030	30	142 mm	K08CP14220	20	13 mm	K99CP01300	100
142 mm	KN8CP14220	20	293 mm	K08CP29320	20	25 mm	K99CP02500	100
293 mm	KN8CP29320	20	<b>1.0µm Pore Size</b>			47 mm	K99CP04700	100
<b>0.1µm Pore Size</b>			13 mm	K10CP01300	100	<b>12.0µm Pore Size</b>		
13 mm	K01CP01300	100	25 mm	K10CP02500	100	13 mm	K12CP01300	100
25 mm	K01CP02500	100	47 mm	K10CP04700	100	25 mm	K12CP02500	100
47 mm	K01CP04700	100	90 mm	K10CP09030	30	47 mm	K12CP04700	100
90 mm	K01CP09030	30	142 mm	K10CP14220	20	<b>14.0µm Pore Size</b>		
142 mm	K01CP14220	20	293 mm	K10CP29320	20	13 mm	K14CP01300	100
293 mm	K01CP29320	20	<b>2.0µm Pore Size</b>			25 mm	K14CP02500	100
<b>0.2µm Pore Size</b>			13 mm	K20CP01300	100	47 mm	K14CP04700	100
13 mm	K02CP01300	100	25 mm	K20CP02500	100	<b>20.0µm Pore Size</b>		
25 mm	K02CP02500	100	47 mm	K20CP04700	100	13 mm	K22CP01300	100
47 mm	K02CP04700	100	90 mm	K20CP09030	30	25 mm	K22CP02500	100
90 mm	K02CP09030	30	142 mm	K20CP14220	20	47 mm	K22CP04700	100
142 mm	K02CP14220	20	293 mm	K20CP29320	20			
293 mm	K02CP29320	20						

# Black Polycarbonate Membrane



Polycarbonate membrane filters are available with a black surface for staining applications. Epifluorescent microscopy allows the direct observation and total enumeration of viable and nonviable organisms in less than 30 minutes as compared to traditional culturing methods that may require incubation times of up to 72 hours. Traditional culturing methods also underestimate the total number of micro-organisms in a sample due to the selective nature of the media employed, lack of detection of nonviable micro-organisms, and failure to count micro-organisms that are present as aggregates or associated with particles. The need to count the total population of micro-organisms may be important since the presence of large numbers in some samples may be significant, regardless of viability.

The epifluorescence microscopy technique has been used for the assay of micro-organisms in potable water, ultrapure water,

food and dairy products, wines and beverages, parenterals, hydrocarbons and for general microbiological laboratory, medical, and research applications.

The basic procedure is simple and reproducible; a known quantity of liquid is filtered through a black polycarbonate membrane. The micro-organisms are stained on the surface of the filter with one or more dyes, and the fluorescing micro-organisms are observed using an epifluorescent microscope.

Black polycarbonate membrane filters are ideally suited for use in epifluorescent microscopy because:

- The micro-organisms are retained in one plane on the surface of the membrane filter
- The surface of the membrane filter is flat and smooth, assuring that no micro-organisms will be captured within the filter structure as with ordinary tortuous pore filters
- Polycarbonate membrane filters do not stain, and they exhibit extremely low nonspecific absorption
- Polycarbonate membrane filters are treated for essentially zero autofluorescence, each lot being tested. This assures high visibility against a nondistracting background

## ORDERING INFORMATION

Dia.	Cat. No.	Qty/Pk
<b>0.1µm Pore Size</b>		
13 mm	K01BP01300	100
25 mm	K01BP02500	100
47 mm	K01BP04700	100
<b>0.2µm Pore Size</b>		
13 mm	K02BP01300	100
25 mm	K02BP02500	100
47 mm	K02BP04700	100
<b>0.4µm Pore Size</b>		
13 mm	K04BP01300	100
25 mm	K04BP02500	100
47 mm	K04BP04700	100
<b>0.6µm Pore Size</b>		
13 mm	K06BP01300	100
25 mm	K06BP02500	100
47 mm	K06BP04700	100
<b>0.8µm Pore Size</b>		
13 mm	K08BP01300	100
25 mm	K08BP02500	100
47 mm	K08BP04700	100
<b>1.0µm Pore Size</b>		
13 mm	K10BP01300	100
25 mm	K10BP02500	100
47 mm	K10BP04700	100
<b>5.0µm Pore Size</b>		
13 mm	K50BP01300	100
25 mm	K50BP02500	100
47 mm	K50BP04700	100

## Applications

- Epifluorescence
- Water Testing
- pH Range: 4-8

Standard polycarbonate membrane filters are treated by a proprietary irgalan black process to render them dark grey. This essentially eliminates the natural auto fluorescence of the membrane. Except for a reduction of normal transparency, the membranes have the same characteristics as standard polycarbonate membrane filters.

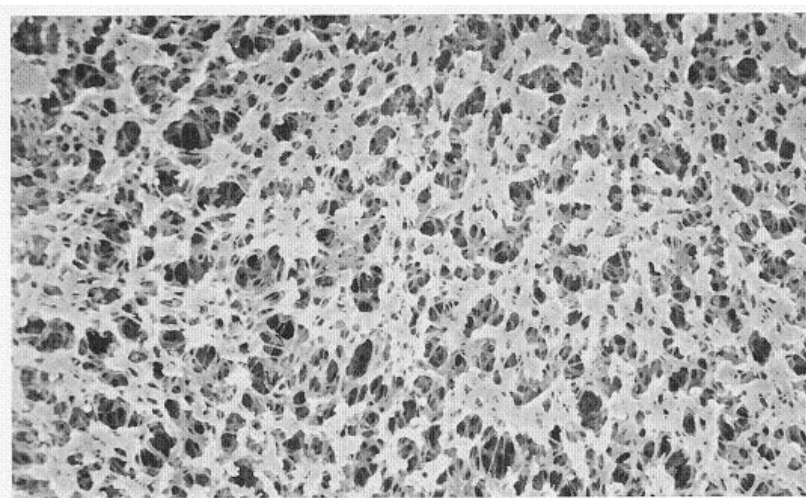


# Polypropylene Membrane

Polypropylene membrane filters are composed of pure polypropylene with absolute pore size ratings.

Polypropylene filters offer broad chemical compatibility allowing its use with aqueous and organic solvent samples.

The polypropylene filter has extremely low extractable levels designed to provide accurate, consistent analysis results for sensitive ion chromatography applications while prolonging column life. Polypropylene filters are the preferred filter membrane for HPLC applications where the detection levels are below 230nm. Polypropylene filters also exhibit negligible protein binding which is essential for maximum sample recovery of critical, small volume protein samples. MicroScience polypropylene filters are available in 0.1, 0.22 and 0.45 micron pore sizes in all disc diameters.



## Applications

- Aqueous and Organic Solvent Filtration
- HPLC Sample Preparation Requiring Low Detection Levels
- Ion Chromatography
- pH Range: 1-14

Dia.	Surface	Cat. No.	Qty/Pk
<b>0.10µm Pore Size</b>			
13 mm	Plain	M01WP01300	100
25 mm	Plain	M01WP02500	100
47 mm	Plain	M01WP04700	100
90 mm	Plain	M01WP09025	25
142 mm	Plain	M01WP14225	25
293 mm	Plain	M01WP29325	25
<b>0.22µm Pore Size</b>			
13 mm	Plain	M02WP01300	100
25 mm	Plain	M02WP02500	100
47 mm	Plain	M02WP04700	100
47 mm	Grid	M02WG04700	100
90 mm	Plain	M02WP09025	25
142 mm	Plain	M02WP14225	25
293 mm	Plain	M02WP29325	25
<b>0.45µm Pore Size</b>			
13 mm	Plain	M04WP01300	100
25 mm	Plain	M04WP02500	100
47 mm	Plain	M04WP04700	100
47 mm	Grid	M04WP04700	100
90 mm	Plain	M04WP09025	25
142 mm	Plain	M04WP14225	25
293 mm	Plain	M04WP29325	25

# Hydraflon™ MEMBRANE

Hydraflon features a high flow, durable, all PTFE filter media. The Hydraflon media offers a broad chemical compatability and provides end users who are using multiple filter medias the opportunity to consolidate their use of different filter types to just one for all their filtration requirements. The Hydraflon media is suitable for use in a broad range of applications and chemistries.

Hydraflon membranes are suitable to use with organic and aqueous solutions. The Hydraflon membrane is particularly suited to chromatography applications.

CATALOGUE NUMBER	PORE SIZE	DIAMETER
MS HY020047HL	0.20um	47mm
MS HY045047HL	0.45um	47mm



## PM2.5 MEMBRANE- Catalogue Number MS PM25A462

The MicroScience PM 2.5 Membranes filters are manufactured in an ISO9001 certified plant. The membranes are chemically resistant, sensitive and have a low chemical background. The membranes are thin with high purity, thermally stable and sequentially numbered. The membranes are used for PM 2.5 air monitoring applications meeting the EPA testing criteria.

### SPECIFICATIONS:

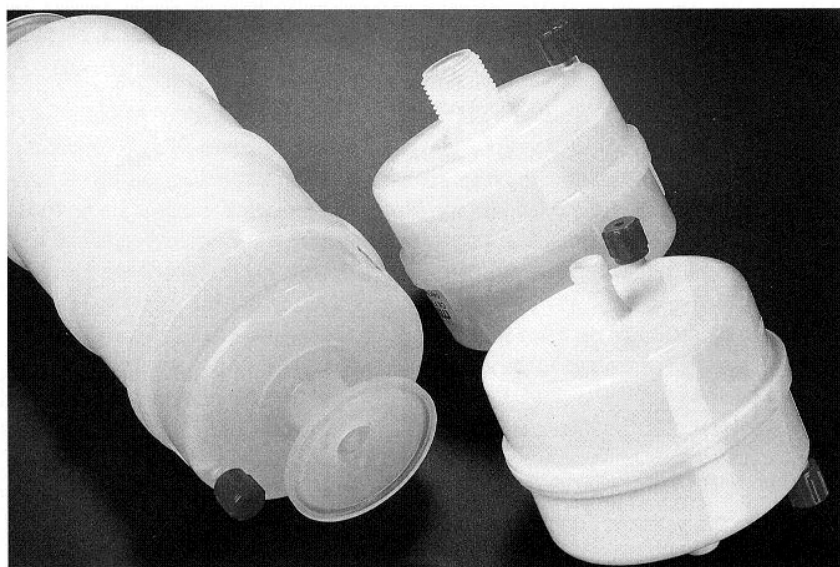
Filter Media	Hydrophobic PTFE
Filter Diameter	46.2 ± 0.25 mm
Filter Thickness	75 ± 10 µm
Filter Pore Size	2 µm
Support Ring Media	PP
Support Ring Thickness	0.46 ± 0.04 mm
Support Ring Width	3.7 ± 0.51 mm
Particle Retention (0.3 µm)	> 99.7%
Pressure Drop	< 30 cm H2O column @ 16.67 L/min clean air flow
Drop Test Wt. Loss Stability	< 20 µg
Temperature Wt. Loss Stability	< 20 µg
Moisture Wt. Gain Stability	< 10 µg
Alkalinity	< 25 µeq/g of filter

# Capsule Filters

MicroScience capsules are disposable filtration units designed for the removal of particles or bacteria from aqueous or solvent solutions and gas streams. They are ready to use, eliminating the need to disassemble, clean and reassemble filter housings.

MicroScience capsules contain no glue or surfactants and feature serial layer filter design for increased throughput and extended life. Two upstream vents are included to facilitate venting in any position. All capsules containing membrane media are pre-flushed with 18 megohm water to reduce extractables.

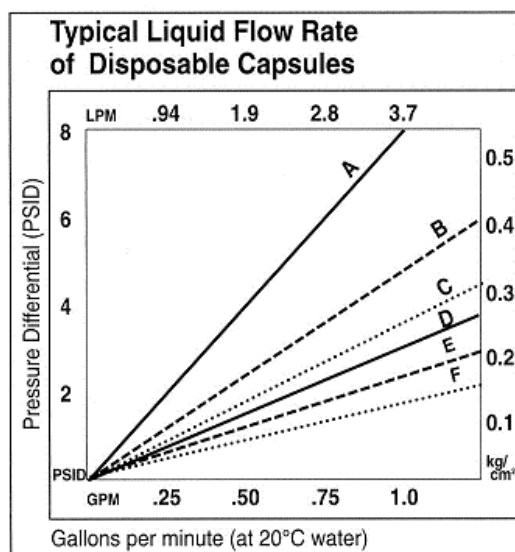
MicroScience capsules pass class VI toxicology testing and are integrity tested prior to shipment. Capsule filters are available in sterile and nonsterile versions. Capsules are available in the following end connections: 3/8 inch and 1/4 inch NPTM; 1½ inch sanitary flange.



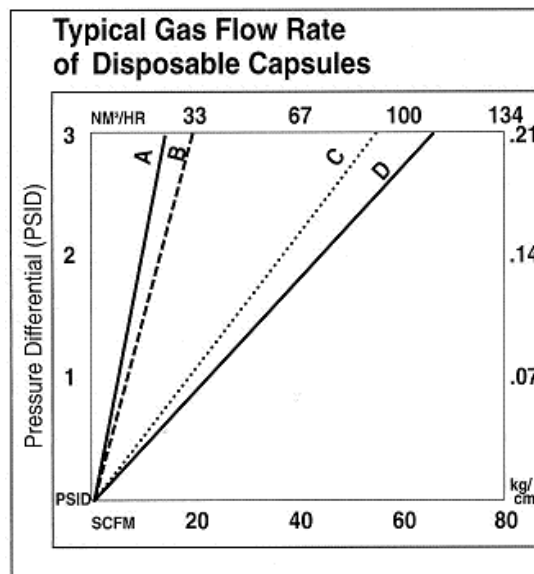
## SPECIFICATIONS

Housing:	Polyester - nylon filter Polypropylene - PES and polypropylene filter
Core:	Polypropylene
Upstream/downstream support:	Polypropylene
Filtration media:	nylon, PES, polypropylene, or glass fiber
Dimension-housing length:	6.4 cm (2.5 inch)
with connections:	10.2 cm (4 inch)
Housing diameter:	8.9 cm (3.5 inch)
Filtration area:	
nylon, Acetate membranes:	754 cm <sup>2</sup> (173 inch <sup>2</sup> )
Polypropylene media:	754 cm <sup>2</sup> (173 inch <sup>2</sup> )
Glass/nylon media:	742 cm <sup>2</sup> (115 inch <sup>2</sup> )
Maximum differential pressure:	60 psi @ 21°C (liquid)
Maximum operating pressure:	80 psi @ 21°C (liquid) 55 psi @ 21°C (gases)
Maximum operating temperature:	40°C
M.S. capsules can withstand autoclaving. Contact Customer Service for protocol approval.	

*All units are packaged in low particulate plastic bags and individual boxes.*



- A DCN nylon, 0.1µm
- B DCG glass/nylon, 0.45µm
- C DCN nylon, 0.22µm
- D DSS PES, 0.22µm
- E DCP polypro, 0.45µm
- F DCN nylon, 0.45µm



- A DCN01 nylon, 0.1µm
- B DCN01 nylon, 0.22µm
- C DCP02 polypro, 0.22µm
- D DCP04 polypro, 0.45µm



# Capsule Filters continued

## Polypropylene (rated @ 99% efficiency)

0.22µm	DCP0200006	3/8 inch hose barb	1
0.22µm	DCP02000M6	1/4 inch hose barb	1
0.22µm	DCP02000T6	1/4 inch NPTM	1
0.22µm	DCP02000G6	1/2 inch NPTM	1
0.22µm	DCP02000H6	1 1/2 inch sanitary flange	1
0.45µm	DCP0400006	3/8 inch hose barb	1
0.45µm	DCP04000M6	1/4 inch hose barb	1
0.45µm	DCP04000T6	1/4 inch NPTM	1
0.45µm	DCP04000G6	1/2 inch NPTM	1
0.45µm	DCP04000H6	1 1/2 inch sanitary flange	1
1.2µm	DCP1200006	3/8 inch hose barb	1
1.2µm	DCP12000M6	1/4 inch hose barb	1
1.2µm	DCP12000T6	1/4 inch NPTM	1
1.2µm	DCP12000G6	1/2 inch NPTM	1
1.2µm	DCP12000H6	1 1/2 inch sanitary flange	1
3.0µm	DCP3000006	3/8 inch hose barb	1
3.0µm	DCP30000M6	1/4 inch hose barb	1
3.0µm	DCP30000T6	1/4 inch NPTM	1
3.0µm	DCP30000G6	1/2 inch NPTM	1
3.0µm	DCP30000H6	1 1/2 inch sanitary flange	1
5.0µm	DCP5000006	3/8 inch hose barb	1
5.0µm	DCP50000M6	1/4 inch hose barb	1
5.0µm	DCP50000T6	1/4 inch NPTM	1
5.0µm	DCP50000G6	1/2 inch NPTM	1
5.0µm	DCP50000H6	1 1/2 inch sanitary flange	1
10.0µm	DCP9900006	3/8 inch hose barb	1
10.0µm	DCP99000M6	1/4 inch hose barb	1
10.0µm	DCP99000T6	1/4 inch NPTM	1
10.0µm	DCP99000G6	1/2 inch NPTM	1
10.0µm	DCP99000H6	1 1/2 inch sanitary flange	1

## PES polyethersulfone, radiation sterilized

0.10µm	DSS0100006	3/8 inch hose barb	1
0.10µm	DSS01000M6	1/4 inch hose barb	1
0.10µm	DSS01000T6	1/4 inch NPTM	1
0.10µm	DSS01000G6	1/2 inch NPTM	1
0.10µm	DSS01000H6	1 1/2 inch sanitary flange	1
0.22µm	DSS0200006	3/8 inch hose barb	1
0.22µm	DSS02000M6	1/4 inch hose barb	1
0.22µm	DSS02000T6	1/4 inch NPTM	1
0.22µm	DSS02000G6	1/2 inch NPTM	1
0.22µm	DSS02000H6	1 1/2 inch sanitary flange	1
0.45µm	DSS0400006	3/8 inch hose barb	1
0.45µm	DSS04000M6	1/4 inch hose barb	1
0.45µm	DSS04000T6	1/4 inch NPTM	1
0.45µm	DSS04000G6	1/2 inch NPTM	1
0.45µm	DSS04000H6	1 1/2 inch sanitary flange	1

Pore Size	Cat. No	Connection	Qty/Pk
<b>Serial-layer nylon</b>			
0.10µm	DCN0100006	3/8 inch hose barb	1
0.10µm	DCN01000M6	1/4 inch hose barb	1
0.10µm	DCN01000T6	1/4 inch NPTM	1
0.10µm	DCN01000G6	1/2 inch NPTM	1
0.10µm	DCN01000H6	1 1/2 inch sanitary flange	1
0.22µm	DCN0200006	3/8 inch hose barb	1
0.22µm	DCN02000M6	1/4 inch hose barb	1
0.22µm	DCN02000T6	1/4 inch NPTM	1
0.22µm	DCN02000G6	1/2 inch NPTM	1
0.22µm	DCN02000H6	1 1/2 inch sanitary flange	1
0.45µm	DCN0400006	3/8 inch hose barb	1
0.45µm	DCN04000M6	1/4 inch hose barb	1
0.45µm	DCN04000T6	1/4 inch NPTM	1
0.45µm	DCN04000G6	1/2 inch NPTM	1
0.45µm	DCN04000H6	1 1/2 inch sanitary flange	1
<b>Serial-layer nylon radiation sterilized</b>			
0.10µm	DSN01000S6	3/8 inch hose barb	1
0.10µm	DSN01000M6	1/4 inch hose barb	1
0.10µm	DSN01000H6	1 1/2 inch sanitary flange	1
0.22µm	DSN02000S6	3/8 inch hose barb	1
0.22µm	DSN02000M6	1/4 inch hose barb	1
0.22µm	DSN02000H6	1 1/2 inch sanitary flange	1
0.45µm	DSN04000S6	3/8 inch hose barb	1
0.45µm	DSN04000M6	1/4 inch hose barb	1
0.45µm	DSN04000H6	1 1/2 inch sanitary flange	1
<b>Serial-layer glass fiber over Magna nylon</b>			
0.45µm	DCG15N0406	3/8 inch hose barb	1
0.45µm	DCG15N04M6	1/4 inch hose barb	1
0.45µm	DCG15N04T6	1/4 inch NPTM	1
0.45µm	DCG15N04G6	1/2 inch NPTM	1
0.45µm	DCG15N04H6	1 1/2 inch sanitary flange	1

Pore Size	Cat. No	Connection	Qty/Pk
<b>Teflon</b>			
0.10µm	DCF0100006	3/8 inch hose barb	1
0.10µm	DCF01000M6	1/4 inch hose barb	1
0.10µm	DCF01000T6	1/4 inch NPTM	1
0.10µm	DCF01000G6	1/2 inch NPTM	1
0.10µm	DCF01000H6	1 1/2 inch sanitary flange	1
0.22µm	DCF0200006	3/8 inch hose barb	1
0.22µm	DCF02000M6	1/4 inch hose barb	1
0.22µm	DCF02000T6	1/4 inch NPTM	1
0.22µm	DCF02000G6	1/2 inch NPTM	1
0.22µm	DCF02000H6	1 1/2 inch sanitary flange	1
0.45µm	DCF0400006	3/8 inch hose barb	1
0.45µm	DCF04000M6	1/4 inch hose barb	1
0.45µm	DCF04000T6	1/4 inch NPTM	1
0.45µm	DCF04000G6	1/2 inch NPTM	1
0.45µm	DCF04000H6	1 1/2 inch sanitary flange	1
<b>PES polyethersulfone</b>			
0.10µm	DCS0100006	3/8 inch hose barb	1
0.10µm	DCS01000M6	1/4 inch hose barb	1
0.10µm	DCS01000T6	1/4 inch NPTM	1
0.10µm	DCS01000G6	1/2 inch NPTM	1
0.10µm	DCS01000H6	1 1/2 inch sanitary flange	1
0.22µm	DCS0200006	3/8 inch hose barb	1
0.22µm	DCS02000M6	1/4 inch hose barb	1
0.22µm	DCS02000T6	1/4 inch NPTM	1
0.22µm	DCS02000G6	1/2 inch NPTM	1
0.22µm	DCS02000H6	1 1/2 inch sanitary flange	1
0.45µm	DCS0400006	3/8 inch hose barb	1
0.45µm	DCS04000M6	1/4 inch hose barb	1
0.45µm	DCS04000T6	1/4 inch NPTM	1
0.45µm	DCS04000G6	1/2 inch NPTM	1
0.45µm	DCS04000H6	1 1/2 inch sanitary flange	1

# DISPOSABLE MICROBIOLOGICAL MONITORS

- **Mixed Ester (MCE) Membrane Filter 0.45um 47mm White with Grids**
- **Sterile Individually Wrapped**
- **100ml Filter Holder Capacity**
- **Filter Holder Converts to use as a Petri Dish**



The Microbiological Monitors are used for contaminants monitoring, microbiological testing and sterility testing in liquid samples. The easy system offers , a low cost disposable, ready to use sterile filter set bringing significant convenience to laboratory daily activities enabling the optimization of analysis time for routing testing.

Each unit consists of a measured filter funnel, base, pad, membrane, removable lid and plug in 47mm.

## Application

Total colony counts, especially for the detection of microorganisms contamination in liquids.

Qualitative and quantitative analysis of microbiological testing in pharmaceuticals, food and beverage and water samples.

CATALOGUE NUMBER	POLYMER	PORE SIZE	VOLUME/DIAMETER
MS BM047022W	MCE White with Black Grids	0.22um	100ml/ 47mm
MS BM047045W	MCE White with Black Grids	0.45um	100ml/ 47mm
MS BM047022B	MCE Black with White Grids	0.22um	100ml/ 47mm
MS BM047045B	MCE Black with White Grids	0.45um	100ml/ 47mm



# 50mm Syringe Filter

- 50mm Diameter PP Housing
- 3/8 inch Hose Barb Connections
- Autoclavable
- Available Sterile or Non Sterile

## Applications

- Fermentation/Venting
- Vacuum Pump Protection
- Sterile Filtration
- Sample prep for heavy metal/nutrients testing



<i><b>CATALOGUE NUMBER</b></i>	<i><b>POLYMER</b></i>	<i><b>PORE SIZE</b></i>	<i><b>FEATURES</b></i>
<b>MS SF50JP022</b>	PTFE Hydrophobic	0.22um	non-sterile, PP housing
<b>MS SF50JP022S</b>	PTFE Hydrophobic	0.22um	sterile, PP housing
<b>MS SF50PS045DL</b>	PES Dual Layer	0.45µm	non-sterile, PP housing
<b>MS SF50PS045DLS</b>	PES Dual Layer	0.45um	Sterile, PP housing

Note: Other membrane types and pore sizes available.

## Cellulose Extraction Thimbles

MicroScience cellulose extraction thimbles are made of noble cellulose fibres and cotton linters that are completely free from impurities. Our molding process allows for the thimble to be a single completely homogeneous piece.

### Applications

Determination by extraction of the content of free lipids in food

Sulphur extraction in gases

Soxhlet for determination of fats, lipids, additives or pesticide in the food industry

Soxhlet extraction for determination of resin components in tar (road construction)

Soxhlet extraction of oil and softeners

Extraction of oil and lubricants in slurry and waste water

Extraction of mineral oils in rocks

Extraction of PCB's in soil and slurry

Extraction of monomeric components in plastic materials and rubber

Material	Nominal Porosity	Thickness	Max operating temp.	Pressure Drop (Kpa At 5L/min)
Cellulose	8um	1.2mm	120 degC	0.25

Dimensions (mm) ID X Length	Qty Per Box	Catalogue Number
10 x 50	25	CETD 10x50
19 x 90	25	CETD 19x90
22 x 80	25	CETD 22x80
25 x 80	25	CETD 25x80
25 x 100	25	CETD 25x100
26 x 60	25	CETD 26x60
28 x 80	25	CETD 28x80
28 x 100	25	CETD 28x100
30 x 80	25	CETD 30x80
33 x 80	25	CETD 33x80
33 x 94	25	CETD 33x94
41 x 123	25	CETD 41x123

# MicroScience Centrifuge Filters

C Series for 20-850ul Sample Size

B Series for 4-7ml Sample Size

X Series for 24ml Sample Size

Available in 0.2um and 0.45um pore sizes in the following membrane types:

Nylon

Cellulose Acetate

PES- Polyether sulphone

PTFE

PVDF

Regenerated Cellulose RC



Description	Pack Size	Catalogue Number
C-series 0.2um PES Non Sterile	100	MS CIPE02(100)
C-series 0.2um RC Non Sterile	100	MS CIRC02(100)
C-series 0.2um CA Non	100	MS CICA02(100)
C-series 0.45um PES Non Sterile	100	MS CIPE45(100)
C-series 0.45um RC Non Sterile	100	MS CIRC45(100)
C-series 0.45um CA Non Sterile	100	MS CICA45(100)
B-series 0.2um PES Non Sterile	25	MS BPE02(25)
B-series 0.2um RC Non Sterile	25	MS BRC02(25)
B-series 0.2um CA Non Sterile	25	MS BCA02(25)
B-series 0.45um PES Non Sterile	25	MS BPE45(25)
B-series 0.45um RC Non Sterile	25	MS BRC45(25)
B-series 0.45um CA Non Sterile	25	MS BCA45(25)
X-series 0.2um PES Non Sterile	50	MS XPE02(50)
X-series 0.2um RC Non Sterile	50	MS XRC02(50)
X-series 0.2um CA Non Sterile	50	MS XCA02(50)
X-series 0.45um PES Non Sterile	50	MS XPE45(50)
X-series 0.45um RC Non Sterile	50	MS XRC45(50)
X-series 0.45um CA Non Sterile	50	MS XCA45(50)

# Other Product MicroAnalytix Supplies:

**ADVANTEC**

Laboratory filtration consumables & equipment



Autosampler vials and accessories



HPLC , GC & SPE chromatography columns



Laboratory Deionisers and Ultra-pure water systems



Labelling and safety products



Sterile sample bags and water treatment products

**Whatman**

Laboratory filtration consumables & equipment

**ROCKER**

Vacuum Pumps and filtration equipment

**Parafilm M**

Plastic all purpose wrap



Disposable plastic sterile & non sterile syringes



Chemicals and reagents



Sterile Petri Dishes and centrifuge tubes



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