

Membrane Solutions



2009



Membrane Solutions, LLC

Solutions for Life Science

www.membrane-solutions.com

Filtration Products
Lab-ware
2013 Update



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ECH*nology* Pty Ltd

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Importers & Manufacturers
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About us

Membrane Solutions LLC is a global pioneer in the high-tech filtration, separation, purification and life science industry. We are dedicated to produce different application products which are able to meet customer needs in a wide range of biosciences, industrial processing, laboratory testing, food & beverage, electronics and water treatment. Besides strict quality control process, we are striving for excellence in industry and laboratory field through innovative and competence technologies. Now we have Lab Filtration, Life Science, Industry Process Filtration, Residential Filtration, Medical Filtration and Engineering Group which covers most filtration need in the world.



Membrane Solutions



Our Features

- * ISO9001 certificated & CE Marker
- * Global Supply Chain and customer service
- * Class 100,000 clean room
- * Quick Delivery, 5-7days guaranteed
- * OEM option, branding service
- * Consistent quality assurance and stable product supply
- * The most competitive price in the field

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Overview

Life Science Division at a glance

Life science division of Membrane Solution LLC was established on 2008 based on comprehensive line of products for industry & application. Currently life science products range has implanted to laboratory application, biological test and medical detection to meet different customer requirements. All of membrane solutions products are manufactured under strict quality control to assure consistent performance from batch to batch. As a very young and innovative company focus on disposable plasticware and consumable filtration system, we are continually developing new products according to latest advanced technology that are compatible with customer satisfaction.

Customer Satisfaction

We will strive to provide our customers with the very best level of service that can be expected and therefore customer satisfaction is core to our business. We ensure that there is a structured measure of customer care, that positive & negative customer feedback is documented and reviewed and ensure that all employees deal with all customers in the following manner at all times:

- Be courteous polite & Considerate
- Be patient & flexible with customer demands
- Listen to customers requests and take ownership of issues
- Keep customers informed and exceed their expectation

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Filtration & Purification



Filtration & Purification

MS® Sterile Syringe Filters



Introduction

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs.

Feature

MS®sterile syringe filters are available with:

- Cellulose Acetate (CA)
- Polyethersulphone (PES)
- Polyesteramide(Nylon)
- Mixed Cellulose Ester(MCE)
- Polyfluortetraethylene(PTFE)
- Polyvinylidene fluoride(PVDF)
- Each filter is individually packed and sterilized by Gamma Radiation. Every Syringe Filter is printed with expiry date for easy QC tracking

Application

- Tissue culture media preparation
- Sterile filtration and clarification of biological fluids
- Probe solutions
- Protein and enzyme filtrations
- Hybridization buffers
- Other aqueous solutions

Filtration & Purification

MS® CA Syringe Filter

CA Syringe filters are suitable for the filtration of aqueous solutions. Cellulose Acetate combine high flow rates and thermal stability with very low absorption characteristics. Especially 0.22µm pore size CA Membrane excellently suited for sterilization aqueous solutions, buffers, sera and media.

Feature

- Naturally hydrophilic membrane filter
- Low protein binding: suitable for aqueous protein solutions
- Nitrate free: suitable for groundwater filtration
- Quiet uniform pore size structure
- Extensive pore size specification
- Cell retention and particle collection

Application

- Filtration for aqueous sample and some organic solvents
- Cell Retention for liquid
- Light Scattering Measurement
- Sterilization

Technical Parameter

Parameters	13mm		25mm		33mm	
Membrane material	PES		PES		PES	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Pore Size(µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	90°C		90°C		90°C	
Maximum Operating Pressure (psi)	50		95		120	
Applicable pH value	1-14		1-14		1-14	

Filtration & Purification

MS® PES Sterile Syringe Filters

PES(Polyethersulfone) – low affinity for proteins and extractable with substantially faster flow rates than PVDF; suitable for pre-filtration and filtration of buffers and culture media.

Feature

- High filtration speed
- Low extractable
- Lowest protein binding
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets
- Some Filters are individually wrapped sterile, certified RNase-free, DNase- free, and DNA –free with Non-pyrogenic

Application

- Sterile filtering protein solution
- Tissue culture media filtration
- Tissue culture additive filtration

Technical Parameter

Parameters	13mm		25mm		33mm	
Membrane material	PES		PES		PES	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Pore Size(μm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (μl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	90°C		90°C		90°C	
Maximum Operating Pressure (psi)	50		95		120	
Applicable pH value	1-14		1-14		1-14	

Filtration & Purification

MS® PVDF Sterile Syringe Filters

PVDF (Polyvinylidene fluoride) – extremely low protein-binding; for filtration of non-aggressive aqueous and mild organic solutions, or where maximizing protein recovery is important.

Feature

- Good heat endurance and chemical stability, strong hydrophobicity
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free, and DNA-free with Non-pyrogenic

Application

- Gas filtration
- Vapor filtration
- High-temperature filtration
- Food industry
- Medicine filtration

Technical Parameter

Parameters	13mm	25mm	33mm
Membrane material	PVDF	PVDF	PVDF
Housing material	PP	PP	PP
Filter diameter (mm)	13mm	25mm	33mm
Filtration area (cm ²)	0.65	3.90	4.60
Pore Size(μm)	0.22 0.45	0.22 0.45	0.22 0.45
Holdup volume (μl)	<10	<30	<55
Sample volume (ml)	<12	<100	<140
Maximum Operating Temperature	100°C	100°C	100°C
Maximum Operating Pressure (psi)	50	95	110
Applicable pH value	1-14	1-14	1-14

Filtration & Purification

MS® PTFE Sterile Syringe Filters

We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs.

Feature

- Broad chemical compatibility
- Strong chemical stability and inertia
- Strong hydrophobicity
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets
- Some Filters are individually wrapped sterile, certified RNase-free, Dnase-free, and DNA-free with Non-pyrogenic

Application

- Organic solvent with strong chemical causticity filtration
- strong acid solvent filtration
- Alkali solvent filtration

Technical Parameter

Parameters	13mm		25mm		33mm	
Membrane material	PTFE		PTFE		PTFE	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Pore Size(μm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (μl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	130°C		130°C		130°C	
Maximum Operating Pressure (psi)	130		130		130	
Applicable pH value	1-14		1-14		1-14	

Filtration & Purification

MS® MCE Sterile Syringe Filters

MCE (Mixed Cellulose Ester)-filtration of aqueous solutions;
effectively binds trace proteins.

Feature

- Uniform aperture
- No medium dropping
- Thin texture
- Little resistance
- High filtration speed
- Little absorption
- The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free, Non-pyrogenic, and DNA-free.

Application

- Gas particulate and bacteria filtration and then inspect them
- Oil particulate and bacteria filtration and then inspect them
- Alcohol particulate and bacteria filtration and then inspect them
- Other solvent particulate and bacteria filtration and then inspect them

Technical Parameter

Parameters	13mm	25mm	33mm
Membrane material	MCE	MCE	MCE
Housing material	PP	PP	PP
Filter diameter (mm)	13mm	25mm	33mm
Filtration area (cm ²)	0.65	3.90	4.60
Pore Size(μm)	0.22 0.45	0.22 0.45	0.22 0.45
Holdup volume (μl)	<10	<30	<55
Sample volume (ml)	<12	<100	<140
Maximum Operating Temperature	110°C	110°C	110°C
Maximum Operating Pressure (psi)	120	120	120
Applicable pH value	4-8	4-8	4-8

Filtration & Purification

MS® Nylon Sterile Syringe Filters

MS® Nylon syringe filters offer universal application for analytical procedures. Hydrophilic Nylon is ideal for aqueous (non-acidic) or organic sample prep and HPLC, GC or dissolution sample analysis. With its excellent flow characteristics, very low extractable levels and mechanical stability. The naturally hydrophilic, high protein binding and high dirt loading capacity of Nylon are natural advantages.

Feature

- Hydrophilic property
- No need to moist beforehand
- Uniform aperture
- Strong tenacity and absorbability
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types
- Designed with a Female Luer-Lok inlet and Male Luer-Slip outlets
- Sterile Nylon Syringe Filters are individually wrapped sterile certified RNase-free, Dnase- free, and DNA-free with Non-pyrogenic

Application

- Electric semiconductor industrial water filtration
- Chemicals filtration
- Beverage filtration

Technical Parameter

Parameters	13mm		25mm		33mm	
Membrane material/Housing Material	Nylon/PP		Nylon/PP		Nylon/PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Normal Pore Size(μm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (μl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	100°C		100°C		100°C	
Maximum Operating Pressure (psi)	75		95		110	
Applicable pH value	3-12		3-12		3-12	

Filtration & Purification

MS® Nylon Sterile Syringe Filters

Order Information

Code	Description	Qty/Pack
SFCA013022S	Sterile CA Syringe Filter, Pore:0.22(µm), Diameter:13(mm)	100
SFCA025022S	Sterile CA Syringe Filter, Pore:0.22(µm), Diameter:25(mm)	100
SFCA013045S	Sterile CA Syringe Filter, Pore:0.45(µm), Diameter:13(mm)	100
SFCA025045S	Sterile CA Syringe Filter, Pore:0.45(µm), Diameter:25(mm)	100
SFCA030045S	Sterile CA Syringe Filter, Pore:0.45(µm), Diameter:30(mm)	100
SFCA030022S	Sterile CA Syringe Filter, Pore:0.22(µm), Diameter:30(mm)	100
SFGF013070S	Sterile GF Syringe Filters, Pore:0.7(µm), Diameter:13(mm)	100
SFGF025070S	Sterile GF Syringe Filters, Pore:0.7(µm), Diameter:25(mm)	100
SFGF013100S	Sterile GF Syringe Filters, Pore:1.0(µm), Diameter:13(mm)	100
SFGF025100S	Sterile GF Syringe Filters, Pore:1.0(µm), Diameter:25(mm)	100
SFMCE013022S	Sterile MCE Syringe Filters, Pore:0.22(µm), Diameter:13(mm)	100
SFMCE025022S	Sterile MCE Syringe Filters, Pore:0.22(µm), Diameter:25(mm)	100
SFMCE013045S	Sterile MCE Syringe Filters, Pore:0.45(µm), Diameter:13(mm)	100
SFMCE025045S	Sterile MCE Syringe Filters, Pore:0.45(µm), Diameter:25(mm)	100
SFNY013010S	Sterile Nylon Syringe Filters, Pore:0.1(µm), Diameter:13(mm)	100
SFNY013022S	Sterile Nylon Syringe Filters, Pore:0.22(µm), Diameter:13(mm)	100
SFNY013045S	Sterile Nylon Syringe Filters, Pore:0.45(µm), Diameter:13(mm)	100
SFNY013080S	Sterile Nylon Syringe Filters, Pore:0.8(µm), Diameter:13(mm)	100
SFNY013100S	Sterile Nylon Syringe Filters, Pore:1.0(µm), Diameter:13(mm)	100
SFNY013300S	Sterile Nylon Syringe Filters, Pore:3.0(µm), Diameter:13(mm)	100
SFNY013500S	Sterile Nylon Syringe Filters, Pore:5.0(µm), Diameter:13(mm)	100
SFNY025010S	Sterile Nylon Syringe Filters, Pore:0.1(µm), Diameter:25(mm)	100
SFNY025022S	Sterile Nylon Syringe Filters, Pore:0.22(µm), Diameter:25(mm)	100
SFNY025045S	Sterile Nylon Syringe Filters, Pore:0.45(µm), Diameter:25(mm)	100
SFNY025080S	Sterile Nylon Syringe Filters, Pore:0.8(µm), Diameter:25(mm)	100
SFNY025100S	Sterile Nylon Syringe Filters, Pore:1.0(µm), Diameter:25(mm)	100
SFNY025200S	Sterile Nylon Syringe Filters, Pore:2.0(µm), Diameter:25(mm)	100
SFNY025300S	Sterile Nylon Syringe Filters, Pore:3.0(µm), Diameter:25(mm)	100
SFNY025500S	Sterile Nylon Syringe Filters, Pore:5.0(µm), Diameter:25(mm)	100
SFNY030045S	Sterile Nylon Syringe Filter, Pore:0.45(µm), Diameter:30(mm)	100
SFPES025010S	Sterile PES Syringe Filters, Pore:0.1(µm), Diameter:25(mm)	100
SFPES004022S	Sterile PES Syringe Filters, Pore:0.22(µm), Diameter:4(mm)	100
SFPES013022S	Sterile PES Syringe Filters, Pore:0.22(µm), Diameter:13(mm)	100
SFPES025022S	Sterile PES Syringe Filters, Pore:0.22(µm), Diameter:25(mm)	100
SFPES050022S	Sterile PES Syringe Filters, Pore:0.22(µm), Diameter:50(mm)	100

Filtration & Purification

MS® Nylon Sterile Syringe Filters

Code	Description	Qty/Pack
SFPES013045S	Sterile PES Syringe Filters, Pore:0.45(µm), Diameter:13(mm)	100
SFPES025045S	Sterile PES Syringe Filters, Pore:0.45(µm), Diameter:25(mm)	100
SFPES050045SH	Sterile PES Syringe Filters, Pore:0.45(µm), Diameter:50(mm), Inlet: Stepped Hose Barb; Outlet: Stepped Hose Barb	100
SFPES050045S	Sterile PES Syringe Filters, Pore:0.45(µm), Diameter:50(mm), Inlet: 1/8 in.MNPT; Outlet: Stepped Hose Barb	100
SFPP013022S	Sterile PP Syringe Filters, Pore:0.22(µm), Diameter:13(mm)	100
SFPP025022S	Sterile PP Syringe Filters, Pore:0.22(µm), Diameter:25(mm)	100
SFPP013045S	Sterile PP Syringe Filters, Pore:0.45(µm),Diameter:13(mm)	100
SFPP025045S	Sterile PP Syringe Filters, Pore:0.45(µm),Diameter:25(mm)	100
SFPP050045SH	Sterile PP Syringe Filters, Pore:0.45(µm), Diameter:50(mm), Inlet: Stepped Hose Barb; Outlet: Stepped Hose Barb	100
SFPP050045S	Sterile PP Syringe Filters, Pore:0.45(µm), Diameter:50(mm), Inlet: 1/8 in.MNPT; Outlet: Stepped Hose Barb	100
SFPTFE013022SL	Sterile Hydrophilic PTFE Syringe Filters, Pore:0.22(µm), Diameter: ...	100
SFPTFE013022SB	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.22(µm), Diameter:13(mm)	100
SFPTFE025022SL	Sterile Hydrophilic PTFE Syringe Filters, Pore:0.22(µm)	100
SFPTFE025022SB	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.22(µm),Diameter:25(mm)	100
SFPTFE050022SB	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.22(µm), Diameter:50(mm)	100
SFPTFE013045SL	Sterile Hydrophilic PTFE Syringe Filters, Pore:0.45(µm)	100
SFPTFE013045SB	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.45(µm), Diameter:13(mm)	100
SFPTFE025045SL	Sterile Hydrophilic PTFE Syringe Filters, Pore:0.45(µm)	100
SFPTFE025045SB	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.45(µm), Diameter:25(mm)	100
SFPTFE050045SB	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.45(µm), Housing Diameter:50(mm), Inlet: 1/8 in.MNPT ; Outlet: Stepped Hose Barb	100
SFPTFE050045SBH	Sterile Hydrophobic PTFE Syringe Filters, Pore:0.45(µm),Housing Diameter:50(mm), Inlet: Stepped Hose Barb; Outlet: Stepped Hose Barb	100
SFPVDF013022S	Sterile PVDF Syringe Filter, Pore:0.22(µm),Diameter:13(mm)	100
SFPVDF025022S	Sterile PVDF Syringe Filter, Pore:0.22(µm),Diameter:25(mm)	100
SFPVDF030022S	Sterile PVDF Syringe Filter, Pore:0.22(µm), Diameter:30(mm)	100
SFPVDF050022SH	Sterile PVDF Syringe Filter, Pore:0.22(µm),Diameter:50(mm), Inlet: Stepped Hose Barb; Outlet: Stepped Hose Barb	100
SFPVDF050022S	Sterile PVDF Syringe Filter, Pore:0.22(µm),Diameter:50(mm), Inlet: 1/8 in.MNPT; Outlet: Stepped Hose Barb	100
SFPVDF013045S	Sterile PVDF Syringe Filter, Pore:0.45(µm),Diameter:13(mm)	100
SFPVDF025045S	Sterile PVDF Syringe Filter, Pore:0.45(µm),Diameter:25(mm)	100
SFPVDF030045S	Sterile PVDF Syringe Filter, Pore:0.45(µm), Diameter:30(mm)	100
SFPVDF050045SH	Sterile PVDF Syringe Filter, Pore:0.45(µm),Diameter:50(mm), Inlet: Stepped Hose Barb; Outlet: Stepped Hose Barb	100
SFPVDF		

Vacufil™ Disposable Vacuum Filtration Units



Introduction

Vacufil™ disposable Vacuum Filtration units are very useful in large volume samples separation and purification for tissue culture media, biological fluids and fixation buffers.

The unit includes membrane filter, graduated funnel of clear polystyrene with polyethylene neck adapter and polystyrene reservoir bottle with a separate sterile polyethylene cap. Glass fiber pre-filter is available. Two membranes are available to meet all of your filtration needs: PES and MCE. Available in three styles: complete filter/storage unit and bottle top filters and the reservoir bottle.

Feature

- Available in 0.22µm and 0.45µm
- Volume sizes: 125, 250 and 500ml
- Filter Diameter: 50mm membrane diameter for 250ml units and 75mm for 500 ml units
- Light weight and heavy wall construction
- Engraved graduation ensure veracity
- Large knurls on the reservoir bottle cap for easy screw
- Certified non-pyrogenic
- Reservoir bottles feature easy grip sides for improved handling, simplify tightening/ loosening and adjustments
- Designed wide and easy access bottle mouth for efficiently and stably pour out
- Designed hose connector can fit multiplication hose diameters
- Detergent-free, tissue culture compatible, and heat-sealed to the support grid to maximize flow rate, reduce foaming and protein denaturation

Application

- Ideal for filtration of tissue culture media, biological fluids, fixation buffers etc.
- Cell culture media and other aqueous solutions
- Sterile filtration of solutions which can't be autoclaved
- Sterile filtration and clarification of difficult-to-filter aqueous solutions with a glass fiber pre-filter

Filtration & Purification

Vacufil™ Disposable Vacuum Filtration Units

Choosing guide

PES

Provides fast flow rates and very low protein binding and extractable than cellulosic or nylon membranes, highly recommended for filtering and sterilization cell culture media, biological fluids of aqueous solutions.

MCE

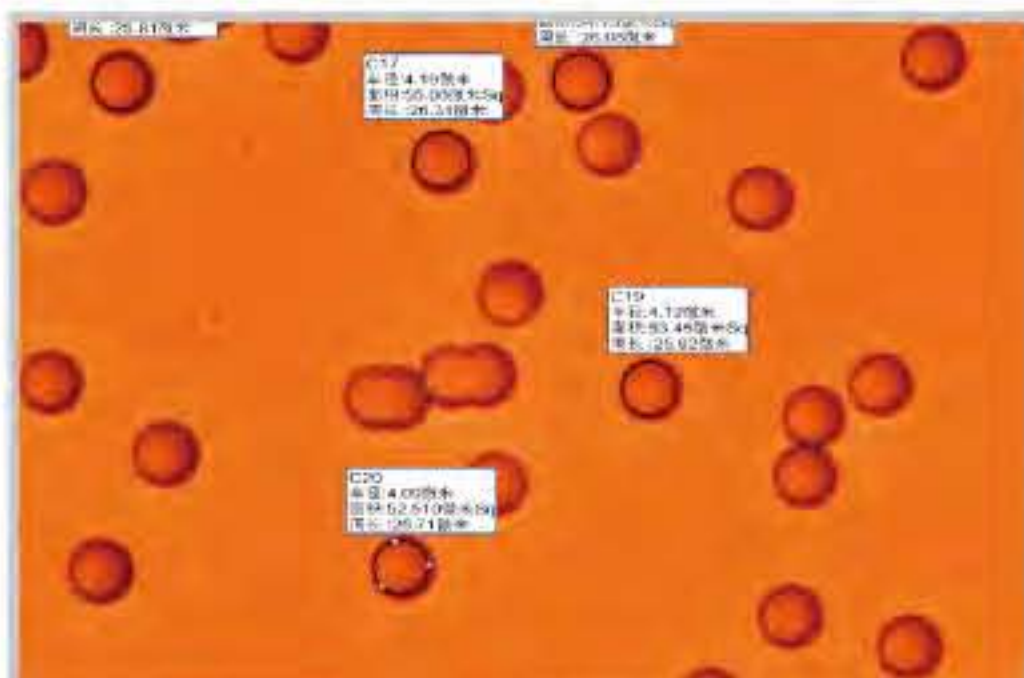
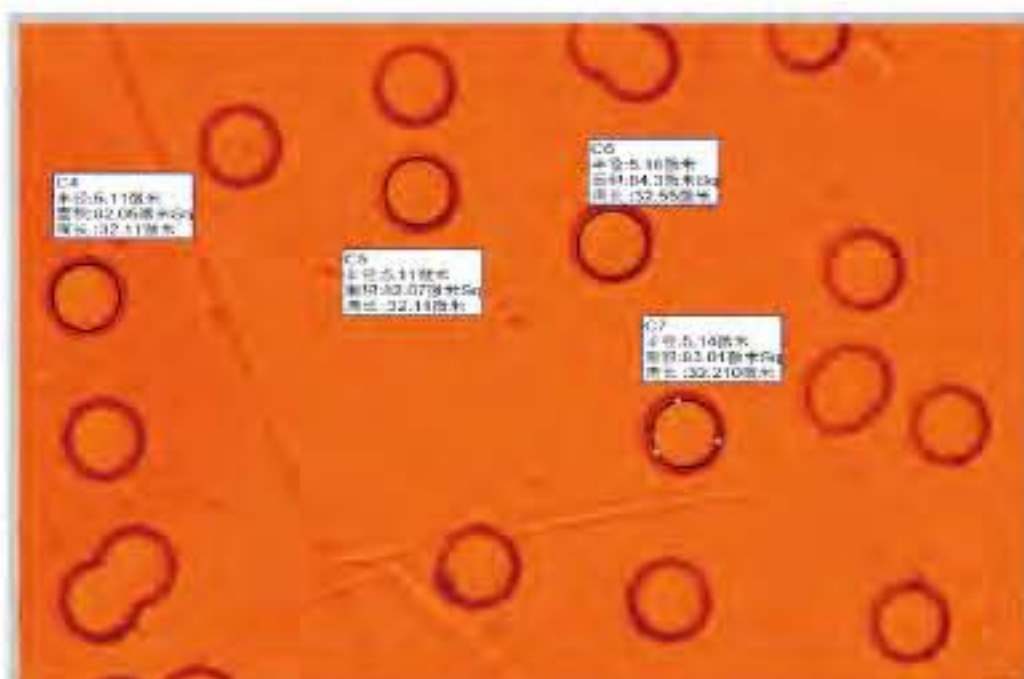
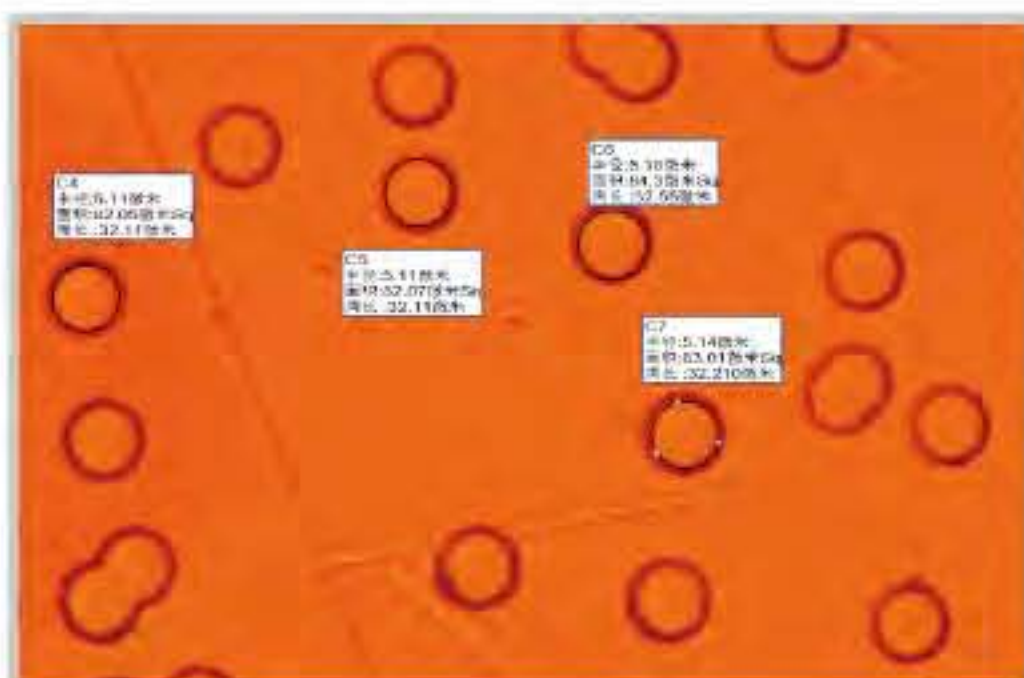
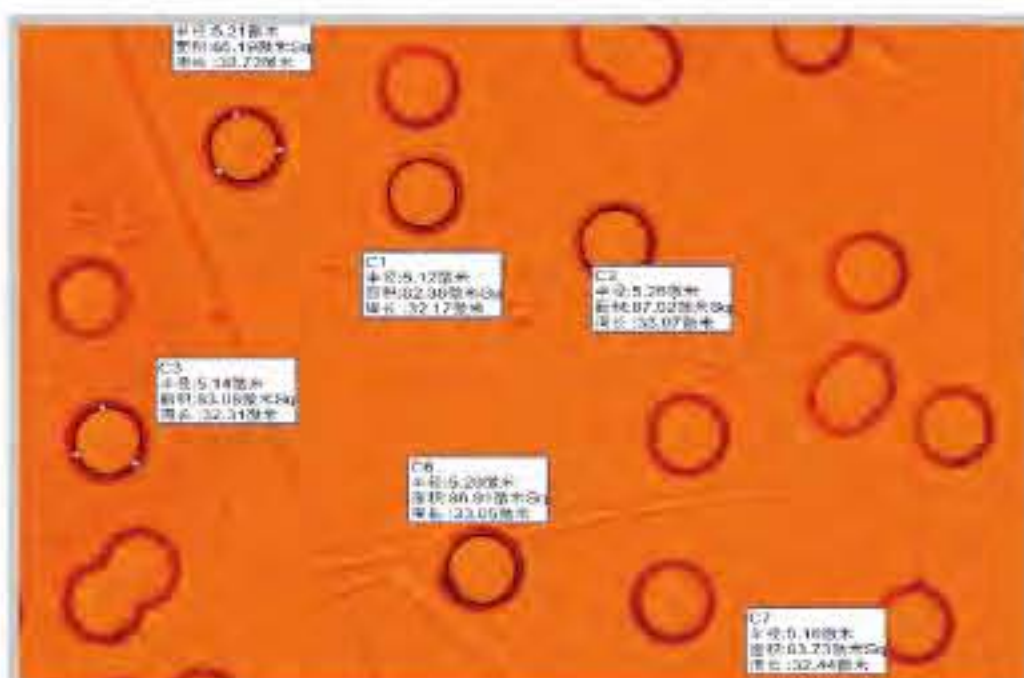
Especially recommended for applications requiring low protein binding, such as filtering culture media containing sera.

Technical Parameter

Code	Funnel Capacity	Filter Pour Size(μm)	Membrane Material	Qty per Case
VFPPE122250	250ml Capacity	0.22	PES	12 pcs/box
VFPMCE122250	Diameter:50mm		MCE	12 pcs/box
VFPPE145250	Both Upper capacity and	0.45	PES	12 pcs/box
VFPMCE145250	Receiver capacity are 250ml		MCE	12 pcs/box
Code	Funnel Capacity	Filter Pour Size(μm)	Membrane Material	Qty per Case
VFPPE122500	250ml Capacity	0.22	PES	12 pcs/box
VFPMCE122500	Diameter:50mm		MCE	12 pcs/box
VFPPE145500	Upper capacity 250ml and	0.45	PES	12 pcs/box
VFPMCE145500	Receiver capacity is 500ml		MCE	12 pcs/box
Filter Funnel				
VFPPE122250F	250mL Capacity	0.22	PES	24 pcs/box
VFPMCE122250F	Diameter:50mm		MCE	24 pcs/box
VFPPE145250F	Filter top funnel	0.45	PES	24 pcs/box
VFPMCE145250F			MCE	24 pcs/box
Reservoir Bottles				
VFP250B	250mL		PS	24 pcs/box
VFP250B	500mL		PS	24 pcs/box

Filtration & Purification

MS[®] Polycarbonate Membrane Filter



Product Description

Track-etched polycarbonate (PC) membranes are manufactured from high-quality polycarbonate film. PC membranes have a smooth flat surface and exhibit very low levels of extractables. They have sharply defined pore sizes, high flow rates, and excellent chemical and thermal resistance. They are suitable for the detection of particles in many corrosive fluids because of this broad chemical compatibility.

Feature

- Smooth glass-like surface with cylindrical pores for maximum particulate capture
- Suitable for air monitoring
- Lowest, non-specific binding membrane
- Precise pore sizes and pore distribution for absolute filtration and separation
- Non-staining, providing an exceptional background for sample observations
- Very low extractables
- Biologically inert
- Optically transparent in most pore sizes
- Excellent chemical resistance and thermal stability
- Capture of samples on a flat, smooth, glass-like surface, with even distribution in one plane
- Exceptionally low tare weights, non-hygroscopic, and low trace element level
- Superior strength

Application

- Epifluorescence microscopy
- Environmental analysis
- Cell biology
- Fuel testing
- Bioassays
- Parasitology
- Air analysis
- Water microbiology

Filtration & Purification

MS® Polycarbonate Membrane Filter

Technical Parameter

Nominal Pore Size (µm)	Pore density (Pores/cm²)	Thickness (µm)	Flow Rate	
			Water (mL/min/cm²)	Air (mL/min/cm²)
12	1x 10 ⁵	13	1250	37
10	1x 10 ⁵	15	1150	34.5
8	1 x 10 ⁵	17	1000	30
5	4x 10 ⁵	20	700	30
3	4x 10 ⁶	22	440	37.5
1	2.2x 10 ⁷	24	130	20
0.8	4x 10 ⁷	24	90	7.8
0.6	4x 10 ⁷	24	60	7.5
0.4	1.5x 10 ⁸	25	33	7.5
0.2	5x 10 ⁸	25	10	3
0.1	6x 10 ⁸	25	2.5	1.5
0.05	6x 10 ⁸	25	/	0.011

Order Information

MFPC013005	PC membrane filter, Diameter:13mm, Pore Size:0.05µm
MFPC025005	PC membrane filter, Diameter:25mm, Pore Size:0.05µm
MFPC047005	PC membrane filter, Diameter:47mm, Pore Size:0.05µm
MFPC013010	PC membrane filter, Diameter:13mm, Pore Size:0.1µm
MFPC025010	PC membrane filter, Diameter:25mm, Pore Size:0.1µm
MFPC047010	PC membrane filter, Diameter:47mm, Pore Size:0.1µm
MFPC142010	PC membrane filter, Diameter:142mm, Pore Size:0.1µm
MFPC013020	PC membrane filter, Diameter:13mm, Pore Size:0.2µm
MFPC025020	PC membrane filter, Diameter:25mm, Pore Size:0.2µm
MFPC037020	PC membrane filter, Diameter:37mm, Pore Size:0.2µm
MFPC047020	PC membrane filter, Diameter:47mm, Pore Size:0.2µm
MFPC090020	PC membrane filter, Diameter:47mm, Pore Size:0.2µm
MFPC142020	PC membrane filter, Diameter:142mm, Pore Size:0.2µm
MFPC013040	PC membrane filter, Diameter:13mm, Pore Size:0.4µm
MFPC025040	PC membrane filter, Diameter:25mm, Pore Size:0.4µm

Filtration & Purification

MS® Polycarbonate Membrane Filter

Order Information

MFPC037040	PC membrane filter, Diameter:37mm, Pore Size:0.4µm
MFPC047040	PC membrane filter, Diameter:47mm, Pore Size:0.4µm
MFPC090040	PC membrane filter, Diameter:90mm, Pore Size:0.4µm
MFPC142040	PC membrane filter, Diameter:142mm, Pore Size:0.4µm
MFPC013060	PC membrane filter, Diameter:13mm, Pore Size:0.6µm
MFPC025060	PC membrane filter, Diameter:25mm, Pore Size:0.6µm
MFPC037060	PC membrane filter, Diameter:37mm, Pore Size:0.6µm
MFPC047060	PC membrane filter, Diameter:47mm, Pore Size:0.6µm
MFPC013080	PC membrane filter, Diameter:13mm, Pore Size:0.8µm
MFPC025080	PC membrane filter, Diameter:25mm, Pore Size:0.8µm
MFPC037080	PC membrane filter, Diameter:37mm, Pore Size:0.8µm
MFPC047080	PC membrane filter, Diameter:47mm, Pore Size:0.8µm
MFPC142080	PC membrane filter, Diameter:142mm, Pore Size:0.8µm
MFPC013100	PC membrane filter, Diameter:13mm, Pore Size:1.0µm
MFPC025100	PC membrane filter, Diameter:25mm, Pore Size:1.0µm
MFPC037100	PC membrane filter, Diameter:37mm, Pore Size:1.0µm
MFPC047100	PC membrane filter, Diameter:47mm, Pore Size:1.0µm
MFPC142100	PC membrane filter, Diameter:142mm, Pore Size:1.0µm
MFPC013200	PC membrane filter, Diameter:13mm, Pore Size:2.0µm
MFPC025200	PC membrane filter, Diameter:25mm, Pore Size:2.0µm
MFPC037200	PC membrane filter, Diameter:37mm, Pore Size:2.0µm
MFPC047200	PC membrane filter, Diameter:47mm, Pore Size:2.0µm
MFPC013300	PC membrane filter, Diameter:13mm, Pore Size:3.0µm
MFPC025300	PC membrane filter, Diameter:25mm, Pore Size:3.0µm
MFPC037300	PC membrane filter, Diameter:37mm, Pore Size:3.0µm
MFPC047300	PC membrane filter, Diameter:47mm, Pore Size:3.0µm
MFPC142300	PC membrane filter, Diameter:142mm, Pore Size:3.0µm
MFPC013500	PC membrane filter, Diameter:13mm, Pore Size:5.0µm
MFPC025500	PC membrane filter, Diameter:25mm, Pore Size:5.0µm
MFPC037500	PC membrane filter, Diameter:37mm, Pore Size:5.0µm
MFPC047500	PC membrane filter, Diameter:47mm, Pore Size:5.0µm
MFPC090500	PC membrane filter, Diameter:90mm, Pore Size:5.0µm
MFPC142500	PC membrane filter, Diameter:142mm, Pore Size:5.0µm
MFPC013800	PC membrane filter, Diameter:13mm, Pore Size:8.0µm
MFPC025800	PC membrane filter, Diameter:25mm, Pore Size:8.0µm
MFPC037800	PC membrane filter, Diameter:37mm, Pore Size:8.0µm
MFPC047800	PC membrane filter, Diameter:47mm, Pore Size:8.0µm
MFPC090800	PC membrane filter, Diameter:90mm, Pore Size:8.0µm
MFPC142800	PC membrane filter, Diameter:142mm, Pore Size:8.0µm

Filtration & Purification

Nitrocellulose Membrane



Description

The major features of the Nitrocellulose membrane available from Membrane Solutions are:

- High Protein binding capacity

MS[®] NC membranes have a high protein binding capacity making your test devices more sensitive and accurate

- Consistent Capillary Rate and Thickness

MS[®] NC membranes are treated with surfactant through a proprietary process. Consistent capillary rate and membrane thickness will render more optimal results in your test devices

- Excellent surface quality

MS[®] NC membranes are manufactured by phase inversion process controlled by

sophisticated equipment. The membranes have no virtually unincorporated dust or powder resulting in an excellent surface quality increases the clarity of the test results.

- Strong tensile strength

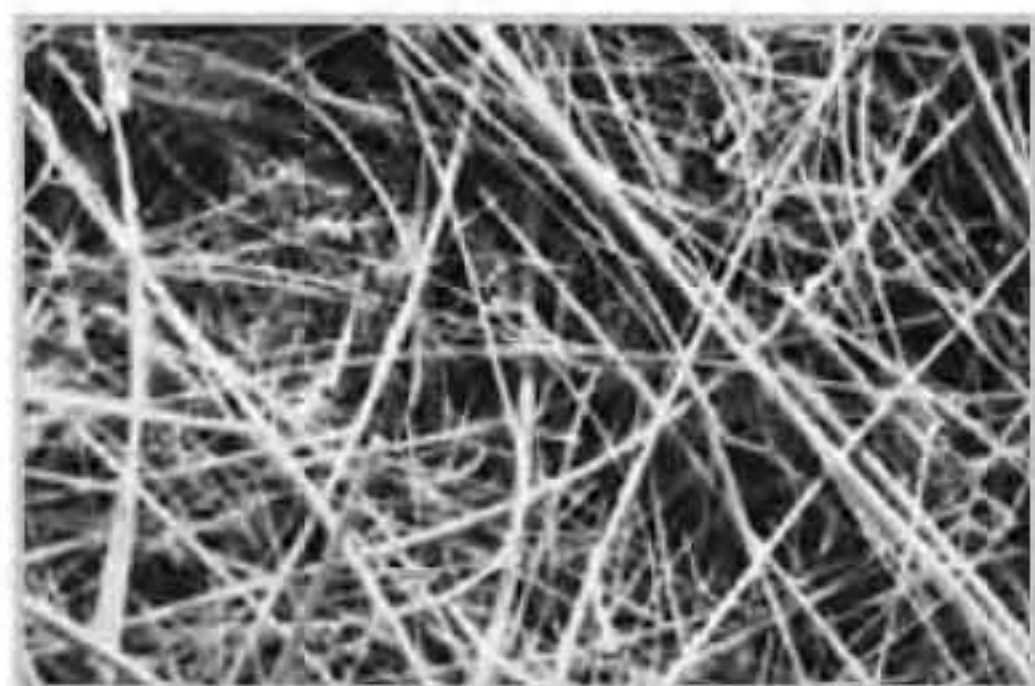
MS[®] NC membranes are flexible and have sufficient tensile strength. The strong tensile strength enables membranes to stand repeated handling during the manufacture of the test devices.

Order Information

Nitrocellulose membrane without substrate							
Type	MS100LF	MS120LF	MS140LF	MS180LF	MS240LF	MS065WB	MS045WB
Capillary rates(Seconds/4cm)	100±40	120±40	140±40	180±40	240±40	N/A	N/A
Pore Size	10µm	8µm		5µm	3µm	0.65µm	0.45µm
Applications	Drug of Abuse, HCG, LH			Infectious Diseasea		For western blotting flow through test devices	
	For lateral folw test device						
Thickness	145µm±20						

Nitrocellulose membrane without substrate					
Type	MS100SLF	MS120SLF	MS140SLF	MS180SLF	MS240SLF
Capillary rates(Seconds/4cm)	100±40	120±40	140±40	180±40	240±40
Pore Size	10µm	8µm		5µm	3µm
Applications	Drug of Abuse, HCG, LH			Infectious Diseasea	
	For lateral folw test device				
Thickness	145µm±20				
Substrate thickness	100µm, 50µm				

MS[®] Glass Fiber Filter



MS[®] Glass fiber filters are manufactured from 100% borosilicate glass. These depth filters combine fast flow rate with high loading capacity and retention of fine particulates. The small diameter fibers give glass fiber filter media superior efficiency and dirt holding as compared to cellulose and synthetic media.

Features

- Made of borosilicate glass fiber without binders or with binder
- Stability at high temperatures: It keeps its properties up to 500 °C and 180 °C for Grade GF10
- Usable as Pre-filter for membranes to prevent the membranes from silting up
- Large surface area provides an outstanding retention capacity.
- High flow speed and high permeability to air
- Reduce filtration costs and premature clogging when filtering difficult-to-filter or highly contaminated solutions.
- Excellent wet strength for easy handling and filter integrity.

Two types of glass fiber filters are available

Binder free glass fiber: Grade GF A, Grade GF B, Grade GF C, Grade GF D, Grade GF F

Binder glass fiber: Grade 6, Grade 8, Grade 9, Grade 10

Grade GF A

- Highly efficient for general laboratory filtration,
- Clarification of buffer and reagent solutions
- Corresponds to many international standards for air and water pollution monitoring

Grade GF B

- Thicker than GF A with higher wet strength and significantly increased loading capacity, Suitable for filtration of large volumes
- Pre-filter for membranes
- Filtration of suspended solids in water/waste water analysis

Filtration & Purification

MS® Glass Fiber Filter

Grade GF C

- The standard filter in many parts of the world for the collection of suspended solids in potable water and natural and industrial wastes
- Widely used for cell harvesting, liquid scintillation counting and binding assays where more loading capacity is required

Grade GF D

- Universal membrane pre-filter material
- Filtration in food industry

Grade GF F

- GF F is the material upon which the EPA Method TCLP 1311 for Toxicity
- Use for filtering extremely fine precipitates such as protein, nucleic acids, or serum precipitates

Grade GF H

- Suitable for suspended solid analysis,
- Cell harvesting
- Air pollution control

Grade GF 6

- Suitable for very fine particles
- Removing protein from difficult-to-filter beers
- Determination of filterable substances and the residue on ignition (dry weight)
- Analysis of aggressive media

Grade GF 8 and Grade GF 9

- Used in the filtration of coarse particles
- Determination of PCB, DDE, DDT, furans and dioxins in the air
- Environmental analysis
- Membrane pre-filter

Grade GF 10

- Used in the filtration of coarse particles
- Weighing aid for infrared weighing
- A roll filter in automatic air filtration units

Specifications

Grade	Weight (g/m ²)	Thickness (mm)	Nominal Rating (µm)	Maximum Temperature (°C)	Binder
GF A	56	0.29	1.6	500	Free
GF B	140	1.00	1.0	500	Free
GF C	54	0.28	1.2	500	Free
GF D	120	0.53	2.7	500	Free
GF F	75	0.40	0.7	500	Free
GF H	65	0.30	1.5	500	Free
GF 6	80	0.35	--	500	Inorganic
GF 8	75	0.35	--	500	Inorganic
GF 9	70	0.35	--	500	Inorganic
GF 10	70	0.35	--	180	Organic

Filtration & Purification

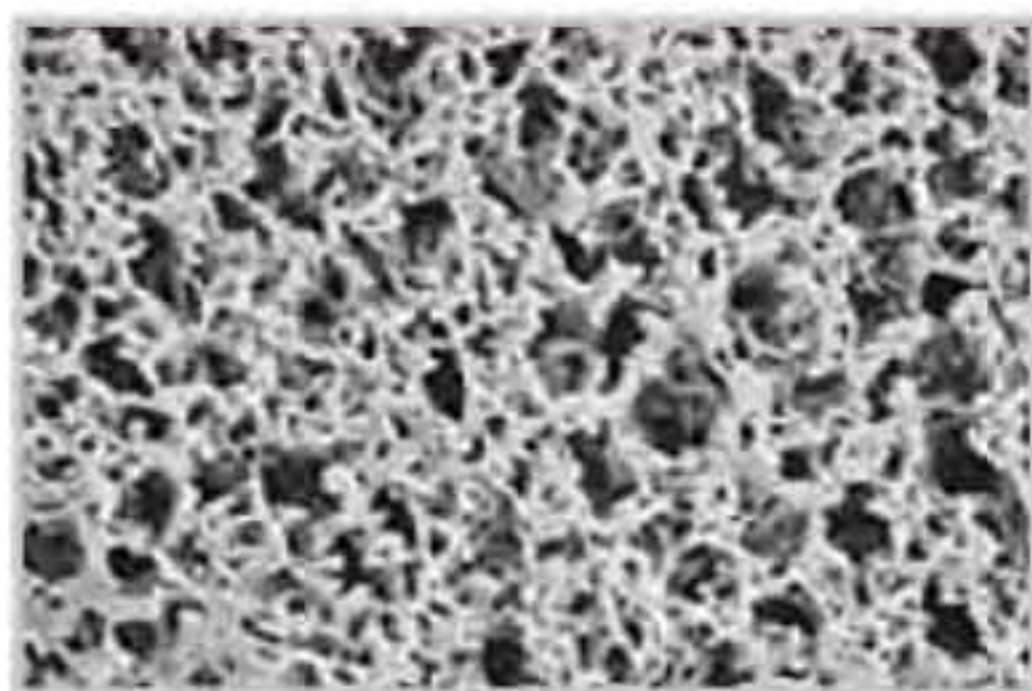
MS® Glass Fiber Filter

Cross Reference

Membrane Solutions	GF A	GF B	GF C	GF D	GF F	GF H	GF 6	GF 8	GF 9	GF 10
Whatman	GF/A	GF/B	GF/C	GF/D	GF/F	934-AH	GF 6	GF 8	GF 9	GF 10

Filtration & Purification

Bio-lott™ Nylon Neutral Transfer Membranes



Feature

- Hydrophilic supported membrane
- High tensile strength and Chemical compatibility
- High binding capacity

Application

- Northern Blotting
- Southern Blotting
- Protein & immunoblotting

Technical Specification

Pore Size	0.22µm	0.45µm
Bubble Point	50psi(3.51kg/cm ²)	30psi(2.11kg/cm ²)
Flow Rate	9.9mls/min/cm ² (0.70kg/cm ²)@10psi	27mls/min/cm ² (1.89kg/cm ²)@10psi
Thickness	65-125µm	
Extractable	< 0.2%(<0.0015mg/ cm ²)	
BSA Binding Capacity	350µg/cm ²	
Maximum Operating Temperature	180°C	

Filtration & Purification

Bio-lott™ Blotting Membrane



Blotting membranes are used widely in biotechnology such as protein transfers, western transfers, protein dot or slot blots, traditional DNA and RNA transfers, nucleic acid detection, northern and southern blotting. Membrane Solutions affords all kinds of blotting membrane including PVDF transfer membrane, nitrocellulose membrane and nylon membrane. We can custom blotting membrane, like the shape, the size, the contents, the package and different use as per your requirements.

- Blotting PVDF Membranes
- Blotting Nitrocellulose membrane
- Blotting Unsupported Nitrocellulose membrane
- Blotting Nylon Membrane
- Blotting Nylon membrane

Blotting membrane selection guide

MS® Life Science offers membranes for use in transfer and immobilization procedures. Selecting the appropriate membrane is critical to the success of a nucleic acid or protein transfer procedure. The several types of immobile transfer membranes exhibit different performance characteristics which can directly affect the outcome of a specific technique.

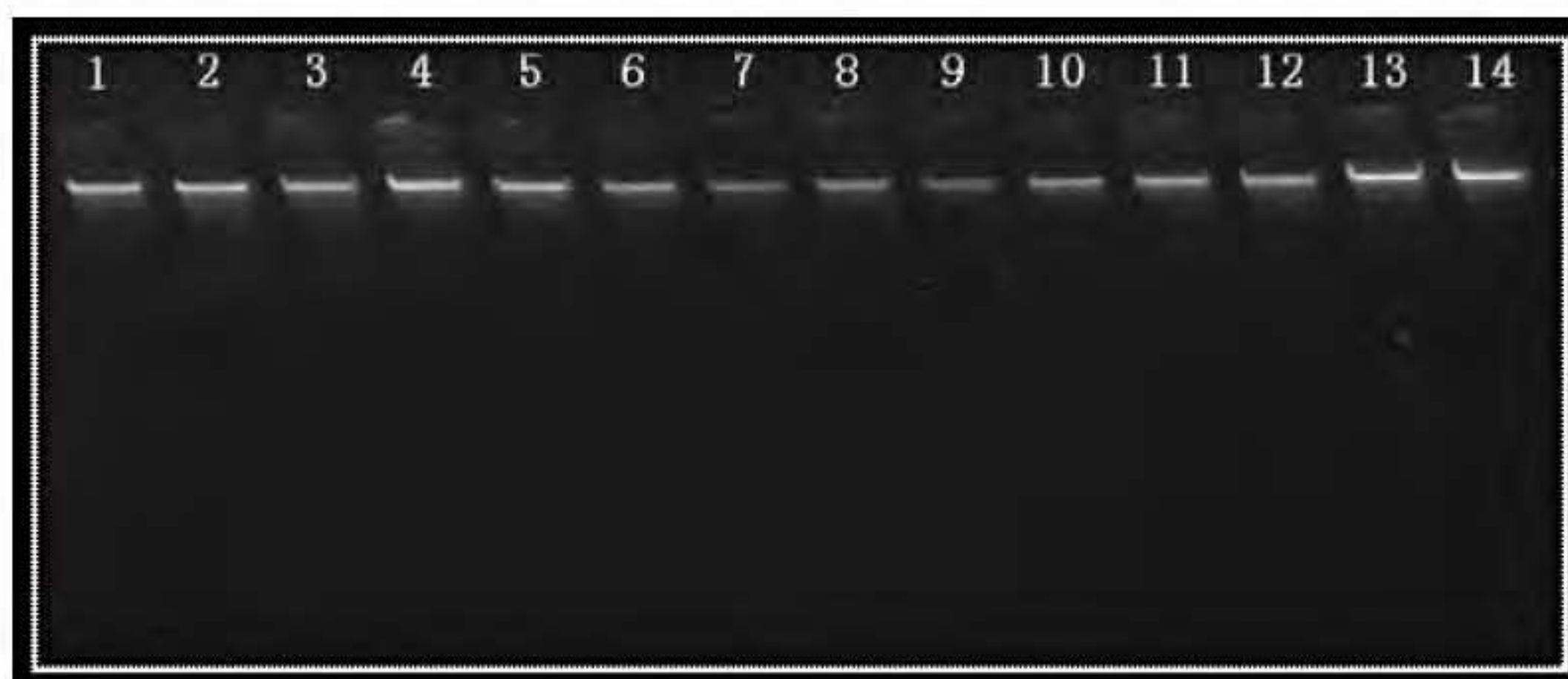
	Bio-lott NC membrane	Bio-lott PVDF membrane	Bio-lott Nylon
Composition	100% Pure Nitrocellulose	Polyvinylidene Fluoride	Nylon-6
Detection Methods	Chromogenic, Radioactive, Fluorescent	Direct Stain, Enzyme-antibody Conjugates, Chromogenic, Chemiluminescent	Chromogenic, Radioactive, Fluorescent
Compatible stains	Amido black, India ink, Ponceau-S red, Colloidal gold, CPTS	Coomassie brilliant blue, Amido black, India ink, Ponceau-S red, Colloidal gold, CPTS, Toluidine blue, Transillumination, Sypro® ruby	Amido black, India ink, Ponceau-S red, Colloidal gold, CPTS

Filtration & Purification

MS® Glass Fiber Filter

	Bio-lott NC membrane	Bio-lott PVDF membrane	Bio-lott Nylon
Works best for: Also suited for:	Colony/Plaque Lifts Nucleic Acid and Protein	Protein Transfers Nucleic Acid	Protein Transfers Nucleic Acid
Advantages	Excellent strength No support fabric No detergents added 100% pure nitrocellulose	Chemical resistance No discoloration Nonflammable High strength	High strength High sensitivity Versatile adsorption properties Chemical resistance
Binding Interaction	Hydrophobic & Electrostatic	Hydrophobic	Hydrophobic
Method of Immobilization	UV Crosslink Baking (Vacuum Oven)	Electroblott	UV Crosslink Baking

The electrophoresis results of Bio-lott™ and the other brand

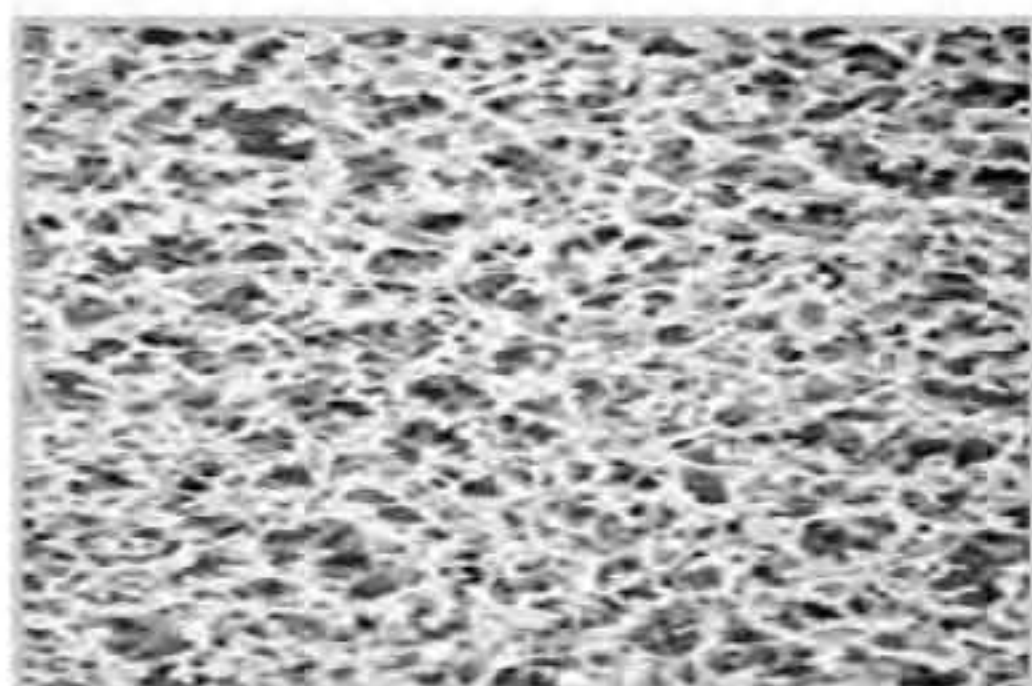


The volume of the reagent is 4ul

- a) 1 and 2 stand for 250µl column of the other brand.
- b) 3 and 4 stand for 0.7µm column 500µl
- c) 5 and 6 stand for 1.0µm column
- d) 7 and 8 stand for 1.2µm column
- e) 9 and 10 stand for 1.6µm column
- f) 11 and 12 stand for 2.7µm column
- g) 13 and 14 stand for four level columns

Filtration & Purification

Bio-lott™ Nitrocellulose Membranes



Feature

- 100% pure nitrocellulose
- High Protein binding capacity
- Consistent Capillary Rate and Thickness
- Low background

Application

- Western Blotting
- Northern Blotting
- Southern Blotting
- Protein & immunoblotting

Technical Specification

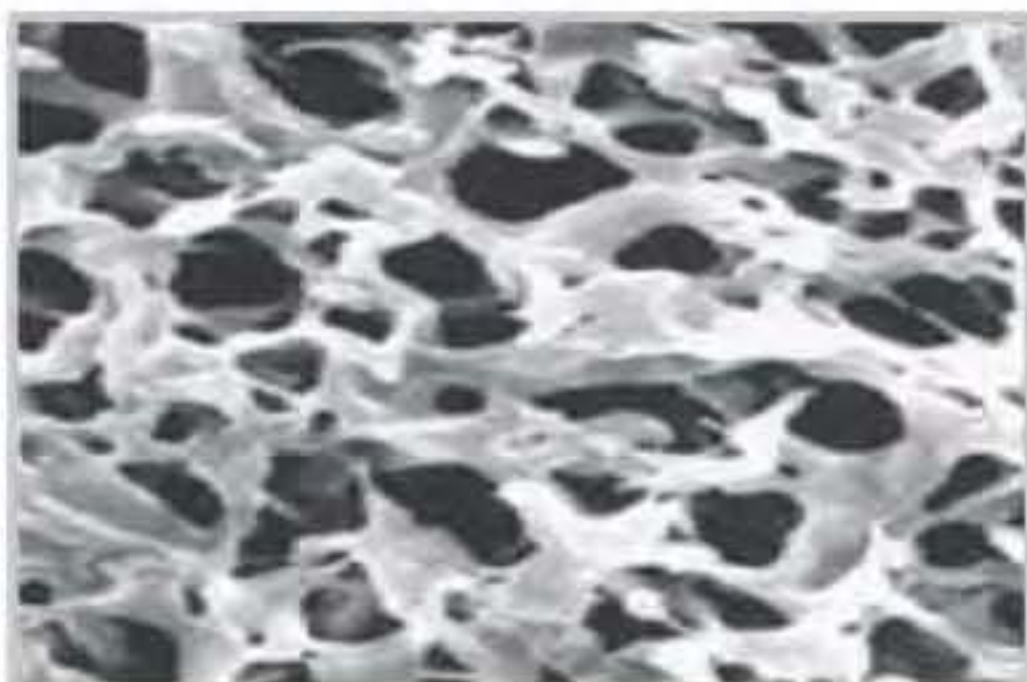
Pore Size	0.22µm	0.45µm
Bubble Point	50psi(3.65kg/cm ²)	30psi(2.11kg/cm ²)
Flow Rate	19mls/min/cm ² (1.34kg/cm ²)@10psi	51mls/min/cm ² (3.59kg/cm ²)@10psi
Thickness	150µm±10µm	
Extractable	<4%	
BSA Binding Capacity	160µg/ cm ²	
Maximum Operating Temperature	356°C	

Order Information

Code	Description	Filter Size
MSNC02030301	0.22µm Nitrocellulose Membranes	300mm×3000mm
MSNC04530301	0.45µm Nitrocellulose Membranes	300mm×3000mm
MSNCE02030301	0.22µm Nitrocellulose membrane supported	300mm×3000mm
MSNCE04530301	0.45µm Nitrocellulose membrane Supported	300mm×3000mm

Filtration & Purification

Bio-Iott™ PVDF (Polyvinylidene Fluoride) Transfer Membranes



Feature

- Hydrophobic unsupported membrane
- High tensile strength and Chemical compatibility
- Low backgrounds, high sensitivity
- High binding capacity

Application

- Western Blotting
- Protein sequencing

Order Information

Pore Size	0.22µm	0.45µm
Thickness	40µm-250µm	
IG Binding Capacity	125µg/ cm2	

Order Information

Code	Description	Filter Size
MSPVDF200210B	1.0µm Hydrophobic PVDF Laminated	200x200(mm)
MSPVDF200222B	0.22µm Hydrophobic PVDF Laminated	200x200(mm)
MSPVDF200245B	0.45µm Hydrophobic PVDF Laminated	200x200(mm)
MSPVDF250310B	1.0µm Hydrophobic PVDF Laminated	254x300(mm)
MSPVDF250322B	0.22µm Hydrophobic PVDF Laminated	254x300(mm)
MSPVDF250345B	0.45µm Hydrophobic PVDF Laminated	254x300(mm)
MSPVDF254022B	0.22µm Hydrophobic PVDF Membrane	Width:254mm
MSPVDF254045B	0.45µm Hydrophobic PVDF Membrane	Width:254mm
MSPVDF260010B	0.1µm Hydrophobic PVDF membrane	Width: 260mm
MSPVDF02030301	0.20µm Transfer membrane PVDF	Roll 300x3000mm
MSPVDF04530301	0.45µm Transfer membrane PVDF	Roll 300x3000mm

Filtration & Purification

Bio-Iott™ Nylon Highly Positively Charged Membrane

Feature

- Inherently charged nylon membrane
- High tensile strength and Chemical compatibility
- High binding capacity

Application

- Northern Blotting
- Southern Blotting
- DNA fingerprinting

Technical Specification

Pore Size	0.22µm	0.45µm
Bubble Point	50psi(3.51kg/cm ²)	30psi(2.11kg/cm ²)
Flow Rate	10mls/min/cm ² (0.70kg/cm ²)@10psi	27mls/min/cm ² (1.89kg/cm ²)@10psi
Thickness	65-125µm	
Extractable	< 0.2%(<0.0015mg/ cm ²)	
BSA Binding Capacity	450µg/ cm ²	
Maximum Operating Temperature	180°C	

Order Information

Code	Description	Filter Size
MSNY200210L	1.0µm Hydrophilic Nylon66 Laminated	200x200(mm)
MSNY200222L	0.22µm Hydrophilic Nylon66 Laminated	200x200(mm)
MSNY200245L	0.45µm Hydrophilic Nylon66 Laminated	200x200(mm)
MSNY250310L	0.45µm Hydrophilic Nylon66 Laminated	254x300(mm)
MSNY250322L	0.22µm Hydrophilic Nylon66 Laminated	254x300(mm)
MSNY250345L	0.45µm Hydrophilic Nylon66 Laminated	254x300(mm)
MSNY253010L	1.0µm Hydrophilic Nylon66 Laminated	254x3000(mm)
MSNY253045L	0.45µm Hydrophilic Nylon66 Laminated	254x3000(mm)
MSNY2541000	10.0µm Hydrophilic Nylon66 Laminated	254mm(width)
MSNY280022L	0.22µm Hydrophilic Nylon66 Laminated	280mm(width)
MSNY280045L	0.45µm Hydrophilic Nylon66 Laminated	280mm(width)
MSNY280500L	5.0µm Hydrophilic Nylon66 Laminated	280mm(width)
MSNYP04530301	0.45µm Nylon positively charged	Roll300x3000mm
MSNY02030301	0.20µm Nylon Membrane	Roll300x3000mm
MSNY04530301	0.45µm Nylon Membrane	Roll300x3000mm
MSNY310010L	0.1µm Hydrophilic Nylon66 Laminated	310mm(width)
MSNY310100L	1.0µm Hydrophilic Nylon66 Laminated	310mm(width)
MSNY310300L	3.0µm Hydrophilic Nylon66 Laminated	310mm(width)
MSNY310022L	0.22µm Hydrophilic Nylon66 Laminated	310mm(width)
MSN		

Filtration & Purification

MS® Filtration tube



Introduction

Filtration tubes are designed for in vitro diagnostic use and intended for concentrating serum, urine, cerebrospinal fluid and other body fluids prior to analysis.

Filter device is made from copolymer styrene/butadiene, and the membrane is made from low binding regenerated cellulose, and the filtrate tube is made from polypropylene

Feature

- High recovery regenerated cellulose membrane in a range of molecular weight cut-offs
- Available with 2 volumes of 15 and 50 ml
- High retentate recovery of >90%
- Maximum initial sample volume and relative centrifugal force when spun in a swinging bucket are 15.0ml and 4,000×g
- Maximum initial sample volume and relative centrifugal force when fixed angle rotor are 12.0ml and 5,000×g
- Typical final concentrate volume is 200µl
- Vertical membrane reduces concentration polarization for ultra-fast spin times (as fast as 10–15 minutes)
- 100% integrity tested for reliable performance
- Convenient sample monitoring with translucent housing and volume gradations
- Direct pipettor sample access eliminates processing step to recover concentrate
- High concentration factors of 80–100X

Order Information

Cat.No.	Capacity(ml)	Speciality	Qty.per bag/case
LBFT022150	15	Conical,Molecular weight cut-offs 5KD,DNase/RNase	12/24
LBFT022500	50		8/24
LBFT122150	15	Conical,Molecular weight cut-offs 10KD,DNase/RNase	12/24
LBFT122500	50		8/24
LBFT222150	15	Conical,Molecular weight cut-offs 100KD,DNase/RNase	12/24
LBFT222500	50		8/24

MS[®] Spin Column



Introduction

MS[®] spin columns provide materials for the fast and convenient purification of a protein or protein complex using affinity media. Immunoprecipitation or affinity pull-down methods are a common way to perform small-scale purification of target molecules. Each spin column fits securely in the supplied 2 mL collection tubes for use in a microcentrifuge. This product allowing for collection of the unbound, wash, and elution fractions per column. The researcher needs only to supply the affinity media of choice. The addition of the end caps with this product provides a convenient storage method for the used column and can also be used for incubation without loss of sample.

Feature

- Convenient format for both use and storage
- Available with 3, 4 or 5 layers of GF/F glass fiber membrane
- Flat and frosted caps surface together with smooth and frosted body surface provide easy and legible mark.

Order information

Code	Description	Qty/Pack
LBSC00203	Spin column, 3 layers of GF/F glass fiber membrane	
LBSC00204	Spin column, 4 layers of GF/F glass fiber membrane	
LBSC00205	Spin column, 5 layers of GF/F glass fiber membrane	

Direct-Pure UP UltraPure & RO Water System



Direct-Pure UP UltraPure&RO Water System produce Type I and Type III water directly from tap water in a single compact system. It is the ideal system for customers without pretreated water available.

Introduction

Specifications

Feed Water:

Tap Water with TDS<200 ppm, 5-45°C, 1.0~3.5Kg/cm²

Flow Rate:

typically 15L/h for RO water

1.5L/min for Type I water

Product Water Quality:

- Resistivity: 18.2 MΩ•cm @ 25°C
- TOC Level(Typical Values): < 10 ppb*
- Particles: (>0.22μm) < 1 /mL
- Microorganism Bio-pure: < 1 cfu/ml
- Pyrogen: < 0.001Eu/ml (with Millipore BioPak Point-of-use ultrafilter)
- Water outlet: Ultrapure water + RO pure water

Dimensions: Length×Depth×Height(cm): 30 X 49 X 48

* Depends on feed water quality

Features

- Assembly Kit treats feed water and protects RO membranes from surface scale build-up, eliminates the need for softening and extends RO membrane life.
- Advanced reverse osmosis technology removes more than 99% contaminations and 95% ions from feed water.
- The patented RephiDuo U Pack ultrapurification cartridge ensures minimal dead water volume and ion-free and organic-free product water that meets or exceeds, CLSI and CAP Type I water standards.
- Final purification is carried out by a 0.2μm sterile filter to remove bacteria and particles above 0.2μm size.
- High-precision resistivity meter with temperature compensation guarantees accurate resistivity of product water measurement.
- Advanced control system monitors unit performance and displays RO membrane performance, ultrapure water resistivity, reservoir level, cartridge status.

We can provide support documents to meet GMP, GLP, FDA and other validation protocols.

Filtration & Purification

Direct-Pure UP UltraPure & RO Water System

Applications

Ultrapure Water	RO Pure Water
Applications	Applications
HPLC (High Performance Liquid Chromatography) flowing preparation; Reagent blank solution preparation; Dilution for GC, HPLC, AA, ICP-BIO-PURE and other analytic technique samples; The buffer solution using for mammal cell culture and culture medium preparation; Molecular biology reagent preparation etc.	Cleaner for rinsing glassware; Water baths; Autoclave; Laboratory animal raising etc.

Ordering Information

Code	Description
Direct-Pure System	
RD0P01500	Direct-Pure UP 15 Ultrapure Water&RO System
RD0P03000	Direct-Pure UP 30 Ultrapure Water&RO System
RD0P015UV	Direct-Pure UP UV 15 Ultrapure Water&RO System
RD0P030UV	Direct-Pure UP UV 30 Ultrapure Water&RO System
Consumables	
Code	Description
RR300Q201	RephiDuo H Pack Cartridge
RR600Q201	RephiDuo H Pack Cartridge
RRQ2F6SKT	RephiDuo U Pack Cartridge with 0.2µm Sterile Filter
RAR010001	RO membrane for Direct-Pure 10 System, 1/PK
LABPA0112	Polypropylene Depth Filter, 10 Inches, 1 µm, 12/Pk
LABPA1012	Polypropylene Depth Filter, 10 Inches, 10 µm, 12/Pk
LABAC1012	Activated Carbon cartridge, 10 Inches, 12/Pk
LABAT1012	Softening cartridge, 10 Inches, 12/Pk
RATANK030	30-liter PE tank
RATANK060	60-liter PE tank
CDUFBI01R	Millipore BioPak point-of-use Ultrafilter

Molecular Biology & Microbiology



Molecular Biology & Microbiology

Bioset™ Monitor



Introduction

MS® disposable sterile Bioset™ Monitor are for contaminants monitoring, microbiological testing and sterility testing in liquid samples like food/beverages from raw materials to finished products.

The easy system of low-cost disposable, ready to use sterile filter sets bring significant convenience to your daily activities in the laboratory and enable you to optimize the analysis time for routine testing.

Each unit consisting of a measured filter funnel, base, pad, membrane, removable lid and plug.

Feature

- MCE gridded membrane with pad with choice of pore size (0.2, 0.45, 0.8, or 1.2 µm)
- Black or white gridded membrane choice for better contrast
- Ready to use: testing time can be reduced by up to 70%
- All-in-one system: filtration unit easily converts to a Petri dish, which can be labeled and incubated for culturing
- Heavy-duty polystyrene (PS), translucent, lightweight, and have reinforced rims and inside fluting
- Heat-resistant, chemically inert hydrophobically non stick
- Removable 100ml graduated plastic funnel
- No risk of phthalate contamination
- Easy handling

Order Information

Item#	Description	Pcs per box
BM047022W	Bioset Microbiological monitor, 100ml, 47mm, 0.22µm, White	50
BM047045W	Bioset Microbiological monitor, 100ml, 47mm, 0.45µm, White	50
BM047080W	Bioset Microbiological monitor, 100ml, 47mm, 0.8µm, White	50
BM047080B	Bioset Microbiological monitor, 100ml, 47mm, 0.8µm, Black	50
BM047022B	Bioset Microbiological monitor, 100ml, 47mm, 0.22µm, Black	50
BM047045B	Bioset Microbiological monitor, 100ml, 47mm, 0.45µm, Black	50

MS[®] Sterile MCE Gridded Membrane Filter



MS[®] Sterile mixed cellulose ester (MCE) Gridded Membrane Filter are composed of cellulose acetate and cellulose nitrate. Because MCE membrane is biologically inert, it's one of the most widely used membranes in analytical and research applications. MCE membrane filter is characterized by a smoother and more uniform surface than pure nitrocellulose filter. Also, the color contrast provided by the filter surface facilitates particle detection and minimizes eye fatigue.

Many microbiological techniques include colony counting after incubation as the standard method of quantification. Gridded filters have clearly defined grid lines spaced at 3.1 mm intervals. The special ink used is nontoxic and completely free from bacterial growth inhibitors. White gridded disks are designed for the recovery and retention of *E. Coli* bacteria in water/wastewater analysis as well as other microbiological tests. Black mixed cellulose esters (MCE) are available plain for automatic colony counting applications, as well as gridded to assist in manual counting procedures. Black MCE membranes provide contrast between residue or cell colors and the filter without having to counter-stain the membrane.

Features

- The color contrast provided by the filter surface facilitates particle detection and minimizes eye fatigue.
- Gridded filters have clearly defined grid lines spaced at 3.1 mm intervals.
- The special ink used is nontoxic and completely free from bacterial growth inhibitors.
- White, gridded membrane filters are designed for the recovery and retention of *E. Coli* bacteria in water/wastewater analysis as well as other microbiological tests.
- Black mixed cellulose esters(MCE) are available plain for automatic colony counting applications, as well as gridded to assist in manual counting procedures.
- Black MCE membranes provide contrast between residue or cell colors and the filter without having to counter-stain the membrane.
- Individual Pack

Molecular Biology & Microbiology

MS® Sterile MCE Gridded Membrane Filter

Application

Application	Color	Pore Size(µm)
Micro dialysis of DNA and proteins	White	0.1
Sterilizing filtration, bioassays	White	0.22
Sterilizing filtration, air monitoring, particle monitoring, particle removal, bioassays	White	0.3
Clarification of aqueous solutions, particle removal and analysis, microbiology analysis	White	0.45
Fluorescent bacteriological assays, particle monitoring, bioassays	Black	0.45
Particle monitoring, particle removal, dairy microbiology, retention of yeasts, molds and algae	White	0.65
Air monitoring, particle monitoring, particle removal, bioassays	White	0.8
Fluorescent assays, particle monitoring, air monitoring	Black	0.8
Clarification of aqueous solutions	White	1
QC of fluid holding tanks, fluid monitoring, air monitoring, particle collection and analysis	White	3
QC of fluid holding tanks, fluid monitoring, particle collection and analysis	White	5
QC of fluid holding tanks, fluid monitoring, air monitoring, particle collection and analysis	White	8

Specifications

Pore Size (µm)	Color	Bubble Point (Bar)	Water Flow Rate (mL/min/cm²)	Air Flow Rate (L/min/cm²)	Porosity
8.0	White	0.40	600	63	84
5.0	White	0.56	560	30	84
3.0	White	0.69	320	28	83
1.0	White	0.77	270	20	82

Molecular Biology & Microbiology

MS® Sterile MCE Gridded Membrane Filter

Pore Size (µm)	Color	Bubble Point (Bar)	Water Flow Rate (mL/min/cm²)	Air Flow Rate (L/min/cm²)	Porosity
0.8	Black	1.15	180	15	82
0.8	White	0.95	180	15	82
0.65	White	1.18	135	9	81
0.45	Black	2.35	60	5	79
0.45	White	2.23	60	5	79
0.22	White	3.62	19	2	75
0.1	White	14.1	1.6	0.5	74

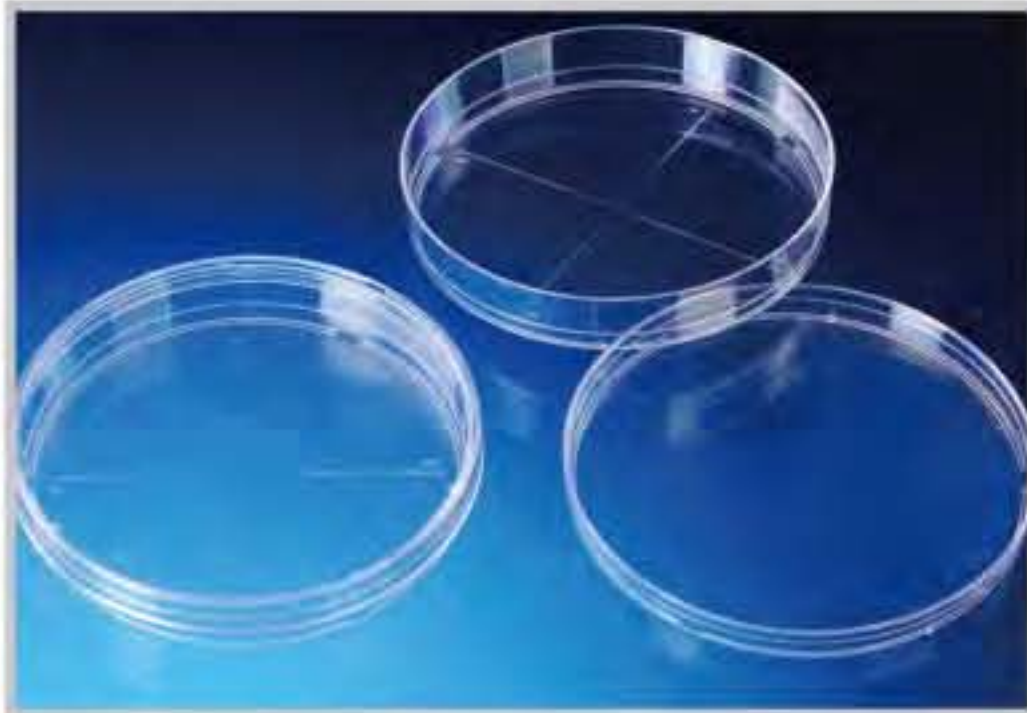
Order Information

Code	Description	Packing
Sterile MCE membrane filter, gridded, Continuous package		
MFMCCE047022CW	MCE Gridded Membrane Filter, White, Continuous Package, Sterile, 0.22(µm), 47(mm), suitable for membrane dispenser	150
MFMCCE047045CW	MCE Gridded Membrane Filter, White, Continuous Package, Sterile, 0.45(µm), 47(mm), suitable for membrane dispenser	150
MFMCCE047080CW	MCE Gridded Membrane Filter, White, Continuous Package, Sterile, 0.8(µm), 47(mm), suitable for membrane dispenser	150
MFMCCE050022CW	MCE Gridded Membrane Filter, White, Continuous Package, Sterile, 0.22(µm), 50(mm), suitable for membrane dispenser	150
MFMCCE050045CW	MCE Gridded Membrane Filter, White, Continuous Package, Sterile, 0.45(µm), 50(mm), suitable for membrane dispenser	150
MFMCCE050080CW	MCE Gridded Membrane Filter, White, Continuous Package, Sterile, 0.8(µm), 50(mm), suitable for membrane dispenser	150
MFMCCE047045CB	MCE Gridded Membrane Filter, Black, Continuous Package, Sterile, 0.45(µm), 47(mm), suitable for membrane dispenser	150
MFMCCE047080CB	MCE Gridded Membrane Filter, Black, Continuous Package, Sterile, 0.8(µm), 47(mm), suitable for membrane dispenser	150
MFMCCE050045CB	MCE Gridded Membrane Filter, Black, Continuous Package, Sterile, 0.45(µm), 50(mm), suitable for membrane dispenser	150
MFMCCE050080CB	MCE Gridded Membrane Filter, Black, Continuous Package, Sterile, 0.8(µm), 50(mm), suitable for membrane dispenser	150

Molecular Biology & Microbiology

MS® Sterile MCE Gridded Membrane Filter

Code	Description	Packing
Sterile MCE membrane filter, gridded, individually package		
MFMCCE047022GWS	MCE Gridded Membrane Filter, White, Individually package, Sterile, 0.22(µm), 47(mm)	200
MFMCCE047045GWS	MCE Gridded Membrane Filter, White, Individually package, Sterile, 0.45(µm), 47(mm)	200
MFMCCE047080GWS	MCE Gridded Membrane Filter, White, Individually package, Sterile, 0.8(µm), 47(mm)	200
MFMCCE050022GWS	MCE Gridded Membrane Filter, White, Individually package, Sterile, 0.22(µm), 50(mm)	200
MFMCCE050045GWS	MCE Gridded Membrane Filter, White, Individually package, Sterile, 0.45(µm), 50(mm)	200
MFMCCE050080GWS	MCE Gridded Membrane Filter, White, Individually package, Sterile, 0.8(µm), 50(mm)	200
MFMCCE047022GWSP	MCE Gridded Membrane Filter, Individually package, White, Sterile, 0.22(µm), 47(mm), With Pad	100
MFMCCE047045GWSP	MCE Gridded Membrane Filter, Individually package, White, Sterile, 0.45(µm), 47(mm), With Pad	100
MFMCCE047080GWSP	MCE Gridded Membrane Filter, Individually package, White, Sterile, 0.80(µm), 47(mm), With Pad	100
MCE Membrane Filter, Black, Gridded, Sterile, Individually Packed		
MFMCCE047022GBS	MCE Gridded Membrane Filter, Individually package, Black, Sterile, 0.22(µm), 47(mm)	200
MFMCCE047045GBS	MCE Gridded Membrane Filter, Individually package, Black, Sterile, 0.45(µm), 47(mm)	200
MFMCCE047080GBS	MCE Gridded Membrane Filter, Individually package, Black, Sterile, 0.80(µm), 47(mm)	200
MFMCCE050022GBS	MCE Gridded Membrane Filter, Individually package, Black, Sterile, 0.22(µm), 50(mm)	200
MFMCCE050045GBS	MCE Gridded Membrane Filter, Individually package, Black, Sterile, 0.45(µm), 50(mm)	200
MFMCCE050080GBS	MCE Gridded Membrane Filter, Individually package, Black, Sterile, 0.80(µm), 50(mm)	200



Introduction

MS[®] Petri dishes are available in a variety of shapes and sizes for use in routine procedures and with automated equipment.

Feature

- Made of molded polystyrene in 35mm, 50mm, 70mm, 90mm and customized diameter
- Designed easily to open with one hand
- Available with or without absorbent pads
- Gamma irradiated for sterilization
- Packaged in heavy-wall polyethylene sleeves

Application

- Bacterial culture
- Ideal for microbiological analysis
- Petri dishes with absorbent pads can be used for culturing micro-organisms Bio-pure on either agar or broth based media

Specialized Dishes

50×15mm sterile Petri dishes

MS[®] 50×15mm sterile Petri dishes with absorbent pads are designed to accommodate 47mm diameter membrane filters. These dishes are stackable and have squared off edges on both the top and bottom which provide convenient grips for one handed opening.

Molecular Biology & Microbiology

MS® Petri Dish

Specifications

Material of Petri dish	Dimension	Filter size	Sterilization
Polystyrene	Height: 15.0mm Diameter: 50.0mm	Accept 47mm absorbent pad and membrane filter	Gamma irradiation

Ordering information

Code	Description	Qty/Pack
LBPD035S	PS Petri Dishes, 35x15mm, standard round, sterile	10/2000
LBPD055S	PS Petri Dishes, 55x15mm, standard round, sterile	10/1000
LBPD070S	PS Petri Dishes, 70x15mm, standard round, sterile	10/1000
LBPD090S	PS Petri Dishes, 90x15mm, standard round, sterile	10/500
LBPD190S	PS Petri Dishes, 90x15mm, standard round, sterile, Two Layer	10/500
LBPD290S	PS Petri Dishes, 90x15mm, standard round, sterile, Three Layer	10/500
LBPD150S	PS Petri Dishes, 150x15mm, standard round, sterile	10/200

MS® PCR Tube



Introduction

MS® PCR Tubes are made of specially formulated high quality polypropylene. These tubes are ideal for use in thermal transfer applications. The unique cap design guarantees perfect fit which prevents sample evaporation during thermal cycling. The smooth tubes feature eliminates the risk of snagging gloves or irritating fingers. Our PCR tubes, plates and strip tubes are specifically designed for use in thermal transfer applications.

MS[®] PCR Tube



Feature

- Easy open and close using one hand
- External graduations and frosted writing surface aid in sample identification
- Certified Dnase/Rnase free
- Autoclavable under normal autoclaving guidelines



Order Information

Code	Description	Qty/Pack
LBPCR02T01	PCR Tubes, dome cap, thin wall, 0.2ml	1000
LBPCT02	PCR Tubes, flat cap, thin wall, 0.2ml	1000
LBPCT05	PCR Tubes, flat cap, thin wall, 0.5ml	1000
LBPCR08T01	PCR coadunate tube, 8-strip, dome cover	200
LBPCR08T02	PCR coadunate tube, 8-strip, flat cover	200
LBPCR12T01	PCR coadunate tube, 12-strip, flat cover	150

MS® PCR Plate



Introduction

MS® PCR Plates are made of specially formulated high quality polypropylene. Nature-color PCR plates are compatible with most thermal cyclers and are ideal for high throughput screening thermo cycler applications. Smooth, thin, uniform well walls ensure accurate thermal transform. Ultrathin walls accelerate heat transfer provided shorter cycles. The PCR Plates have an alphanumeric coding system for easy identification and do fit to all common thermal cyclers. Low-Profile-Plates are recommended in case of small sample volumes, as the dead-room will be reduced between sample and heated lid. Alphanumeric coding in black letters, which are good to view, when loading the plates.

Feature

- The plate has a working volume of 0.2mL per well.
- These 0.2mL multiwell plates are specifically designed for PCR applications.
- Certified Rnase/Dnase, and pyrogen free to ensure purity

Application

- The Plate has a working volume of 0.2mL per well
- These 0.2mL multiwell plates are specifically designed for PCR application
- Certified Rnase/Dnase, and hydrogen free to ensure purity

Order Information

Code	Description	Qty/Pack
LBPCR096N	PCR Plate, 96 wells, 0.2ml, chimney-top, Non-sterilized	200
LBPCR096S	PCR Plate, 96 wells, 0.2ml, chimney-top, sterile	200
LBPCR196N	PCR plate, 96 wells, 0.2ml, with skitr, Non-sterilized	200
LBPCR196S	PCR Plate, 96 wells, 0.2ml, with skitr, sterile	200

MS[®] Micro Centrifuge Tubes



Introduction

MS[®] Centrifuge Tubes are available in polypropylene with flat, pierceable, frosted caps that won't open when the tubes are boiled or autoclaved. Cylindrical plastic containers with conical bottoms, typically with an integral snap cap. They are used in molecular biology and biochemistry to store and centrifuge small amounts of liquid. As they are inexpensive and considered disposable, they are used by many chemists and biologists as convenient sample vials in lieu of glass vials. Made of polypropylene, they can be used in very low temperature (-80 °C to liquid nitrogen temperatures) or with organic solvents such as chloroform. They come in many different sizes, generally ranging from 250 µL to 2.0 mL. The most common size is 1.5 mL. Disinfection is possible (1 atm, 120 °C, 20 minutes), but due to their low cost and the difficulty in cleaning the plastic surface, they are usually discarded after each use.

Feature

- Available with three volume of 0.5, 1.5 and 2.0mL.
- Engraved graduation ensure accuracy.
- Autoclavable at 121°C and freezable to -80°C.
- Gamma radiation sterilized.
- Flat and frosted caps surface together with smooth and frosted body surface provide easy and legible mark.

Order Information

Art.No.	Description	Pack (Pcs/Bag)	Pack (Pcs/Case)
LBCT002N	Micro Centrifuge Tubes, 0.2ml, Conical, Graduated, Non-sterilized	1000	80000
LBCT005N	Micro Centrifuge Tubes, 0.5ml, Conical, Graduated, Non-sterilized	1000	30000
LBCT015N	Micro Centrifuge Tubes, 1.5ml, Conical, Graduated, Non-sterilized	500	10000
LBCT015S	Micro Centrifuge Tubes, 1.5ml, Conical, Graduated, Sterile	500	12000
LBCT020N	Micro Centrifuge Tubes, 2.0ml, Conical, Graduated, Non-sterilized	500	10000
LBCT020S	Micro Centrifuge Tubes, 2.0ml, Conical, Graduated, Sterile	500	10000

Molecular Biology & Microbiology

MS® Centrifuge Tubes



Introduction

MS® Centrifuge Tubes are made of high-clarity polypropylene with feature black printed graduations and a large white marking spot. Smooth, flat surface polyethylene caps for conical bottom tubes and plug seal caps for self-standing tubes are included. Special selected high-clarity polypropylene assures the manufacture good transparency, chemical resistibility and obdurability. And the dual quality security system of ISO 9001:2000 quality management and 100,000 grade clean-room cleanness system insures the manufacture good quality. Furthermore, the universal design make the tubes are suitable for most brand of centrifuge. Additionally, either gamma irradiation sterilized or non-sterilized products are available in order to satisfy the different research requirements and enhance the practicability. All the features allow them be widely used in chemical and life science research.

Feature

- Available with two volume of 15 and 50mL.
- Conical bottom and self-standing bottom.
- Longer length screw caps with sealing ring prevent any leak and offer one-hand convenience
- Easy-to-read black graduations are accurate to $\pm 2\%$, 1mL increments (15mL) or 2.5mL increments (50mL)
- Max.RCF:9,400 for conical bottom tubes; 6,000 for self-standing tubes.
- With a large unerasable frosting white printed writing area provide easy and legible mark
- Both the graduations and writing areas are chloroform-resistant
- Autoclavable at 121 °C and freezable to -80 °C.
- Gamma radiation sterilized.
- Leak-proof

Order Information

Art.No.	Description	Pack (Pcs/Bag)	Pack (Pcs/Case)
LBCT050T01	Centrifuge Tubes, 5.0ml, Round bottom with cover, Non-sterilized	300	4500
LBCT050T02	Centrifuge Tubes, 5.0ml, Round bottom with cover, Sterile	300	4500
LBCT070T01	Centrifuge Tubes, 7.0ml, Round bottom with cover, Non-sterilized	300	4500
LBCT070T02	Centrifuge Tubes, 7.0ml, Round bottom with cover, Sterile	300	4500

Art.No.	Description	Pack (Pcs/Bag)	Pack (Pcs/Case)
LBCT100T01	Centrifuge Tubes, 10.0ml, Round bottom with cover, Non-sterilized	200	4000
LBCT100T02	Centrifuge Tubes, 10.0ml, Round bottom with cover, Sterile	200	4000
LBCT100T03	Screw Mouth Centrifuge Tubes, 10.0ml, Conical, Graduated, Sterile	100	2000
LBCT100T04	Screw Mouth Centrifuge Tubes, 10.0ml, Round bottom, Sterile	100	2000
LBCT150S	Centrifuge Tubes, 15.0ml, Conical, Graduated, Sterile	100	2000
LBCT150N	Centrifuge Tubes, 15.0ml, Conical, Graduated, Non-sterilized	100	1500
LBCT500N	Centrifuge Tubes, 50.0ml, Conical, Graduated, Non-sterilized	50	1000
LBCT500S	Centrifuge Tubes, 50.0ml, Conical, Graduated, Sterile	50	600
LBCT501N	Centrifuge Tubes, 50.0ml, Self-standing, Graduated, Non-sterile	50	1000
LBCT501S	Centrifuge Tubes, 50.0ml, Self-standing, Graduated, Sterile	50	800

Molecular Biology & Microbiology

BIO-PURE® Freeze tube



Introduction

BIO-PURE® Freeze Tubes are manufactured from polypropylene to withstand temperatures to -80 °C. Tubes can be color-coded with inserts. All self-standing vials have a special base design allowing them to be locked into the cryogenic rack and tray, for single-handed manipulation.

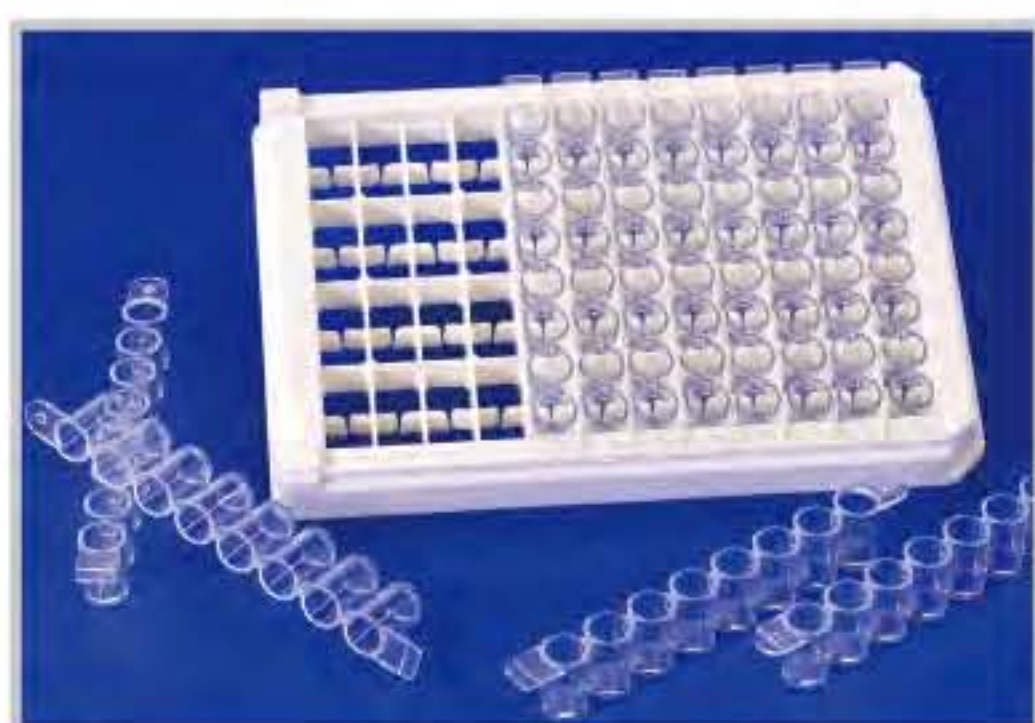
Feature

- Available with 9 volume of 0.5, 1.5, 1.8, 2, 4, 5, 7, 10 and 12m L
- Screw cap with plug seal for one-handed operation
- Self standing
- Easy-to-read graduations are accurate to $\pm 2\%$
- Gamma irradiation sterilized

Order Information

Art.No.	Description	Pack (Pcs/Bag)	Pack (Pcs/Case)
LBFT15S	Freeze Tube, 1.5ml, Self standing, Sterile	500	12000
LBFT18S	Freeze Tube, 1.8ml, Self standing, Sterile	500	11000
LBFT50S	Freeze Tube, 5.0ml, Self standing, Sterile	200	4400
LBFT70T01	Freeze Tube, 7ml, Silicon ring, Ungraduated, Sterile	150	3000
LBFT100T01	Freeze Tube, 10ml, Silicon ring, Self standing, Sterile	150	3000
LBFT15S	Freeze Tube, 1.5ml, Self standing, Sterile	500	12000
LBFT18S	Freeze Tube, 1.8ml, Self standing, Sterile	500	11000

MS® ELISA Plate



Introduction

ELISA Plates are optimal products for ELISA and provide reliable performance in binding assays when consistent coating of wells is required. ELISA Plates with 3 protein binding capability well surface are available. The absolutely flat floor area, free from inclusions, guarantees the highest level of transparency. The advantages of the ELISA are similar to other antibody-labeled reactions which include specificity, sensitivity, inexpensiveness, and safety. Since the enzyme label is the critical portion of ELISA, its selection is very important. The enzyme selected should be stable under the conditions used for storage, cross-linking, and the assay. The most effective enzymes will have a high specific activity and will be inexpensive.

Feature

- Two different bottom styles, fixed flat bottom and detachable flat bottom
- 8 or 12 wells strip and 48 or 96 well detachable frames are supplied in order to satisfy different sample quantity and economize cost
- Well surface is uniform, smooth and free from striation to eliminate error
- 100% virgin high quality crystal-grade polystyrene for optical clarity and consistency
- CV of transmittance is less than 5.00%
- Provides reliable performance in binding assays when consistent coating of wells is required
- Sterilized by gamma irradiation

Order Information

Art.No.	Description	Qty/Pack
LBEP248	ELISA Plate, 48 Wells, Detachable, aminated binding	20/400
LBEP048	ELISA Plate, 48 Wells, Detachable, high binding	20/400
LBEP148	ELISA Plate, 48 Wells, Detachable, medium binding	20/400
LBEP096	ELISA Plate, 96 Wells, fixed flat bottom, high binding	10/200
LBEP196	ELISA Plate, 96 Wells, Detachable, high binding	10/200
LBEP296	ELISA Plate, 96 Wells, fixed flat bottom, medium binding	10/200
LBEP396	ELISA Plate, 96 Wells, Detachable, medium binding	10/200
LBEP496	ELISA Plate, 96 Wells, fixed flat bottom, aminated binding	10/200
LBEP596	ELISA Plate, 96 Wells, Detachable, aminated binding	10/200

MS[®] Luminescence Plate



Introduction

MS[®] Luminescence test measurements are conducted using an assay module having integrated electrodes with a reader apparatus adapted to receive assay modules, induce luminescence, preferably electrode induced luminescence, in the wells or assay regions of the assay modules and measure the induced luminescence. MS[®] offers the luminescence test plate allows the user very easily to check his microplate luminometer in terms of reproducibility, changes of sensitivity and linearity as well as the dynamic range. In general, the Test Plate can be used to study short and long term stability of the detection system.

Feature

- Minimal well-to-well cross talk and low background
- Ideal for a wide range of fluorescent/luminescent assays
- Fluorescent ELISA's (superior sensitivity)
- Total DNA & total protein assays
- Cytochrome P-450 assays
- DNA hybridization assays
- Protease/peptidase assays, and more

Order Information

Code	Description	Qty/Pack
LBLTP048W	Luminescence Test Plate, 48 wells, 12 wells strip, white	20/400
LBLTP048B	Luminescence Test Plate, 48 wells, 12 wells strip, black	20/400
LBLTP096B	Luminescence Test Plate, 96 wells, 12 wells strip, black	10/200
LBLTP196B	Luminescence Test Plate, 96 wells, 8 wells strip, black	10/200
LBLTP096W	Luminescence Test Plate, 96 wells, 12 wells strip, white	10/200
LBLTP196W	Luminescence Test Plate, 96 wells, 8 wells strip, white	10/200

MS® Deep-well Multiwell Plate



Introduction

Deep-well Multiwell Plates are made of specially formulated high quality polypropylene. These square-well plates work as plates or reservoir. Deep well plates with round wells provided 1.6mL nominal capacity per well. Sealing film well plates provided 2.2mL normal capacity per well and are ideal for large volume applications such as receptor binding assays. The cap mats are engineered to tightly seal a deep well plate and minimize moisture exchange. They are alphanumerically labeled to make sample identification easy.

Feature

- Available with 1.6 and 2.2mL well volumes
- Resistant to a wide variety of chemicals
- Compatible with most robotic samplers and automated liquid handling systems
- Wells are labeled in a standard alpha-numeric pattern to simplify sample identification
- Designed notched corners to facilitate orientation
- Be stackable for easy storage
- Can be used with flexible mat covers or to reduce sample evaporation and contamination
- Adhesive sealing films are also available

Order Information

Code	Description	Qty/Pack
LBDMP096N	Deep-well Multiwell Plates, 96wells, 1.6ml, U type, Non-sterilized	10/200
LBDMP096S	Deep-well Multiwell Plates, 96wells, 1.6ml, U type, sterile	1/200
LBDMP196N	Deep-well Multiwell Plates, 96wells, 2.2ml, U type, Non-sterilized	10/160
LBDMP196S	Deep-well Multiwell Plates, 96wells, 2.2ml, U type, sterile	1/160

Cell/Tissue Culture



Cell/Tissue Culture

MS[®] Tissue/Cell Culture Dish



Introduction

MS[®] Cell Culture Dishes are manufactured from (USP class VI) virgin polystyrene to eliminate all materials and to ensure cell integrity. These dishes are ideal for cell culture and cell harvesting; available in four dish sizes with or without plasma treated surfaces. Plasma treating causes the otherwise very hydrophobic polystyrene surface, to become negatively charged and hydrophilic; allowing cells to attach and multiply.

Growth surface areas are flat and free from striation to maximize usable growth area and transparency. The rim on upper side of the lid mates with the bottom of dishes for easy and secure stacking; spacers on the underside allow aerobic gas exchange while providing sample protection. Dishes are sterilized by gamma irradiation and are certified non-Pyrogenic.

Feature

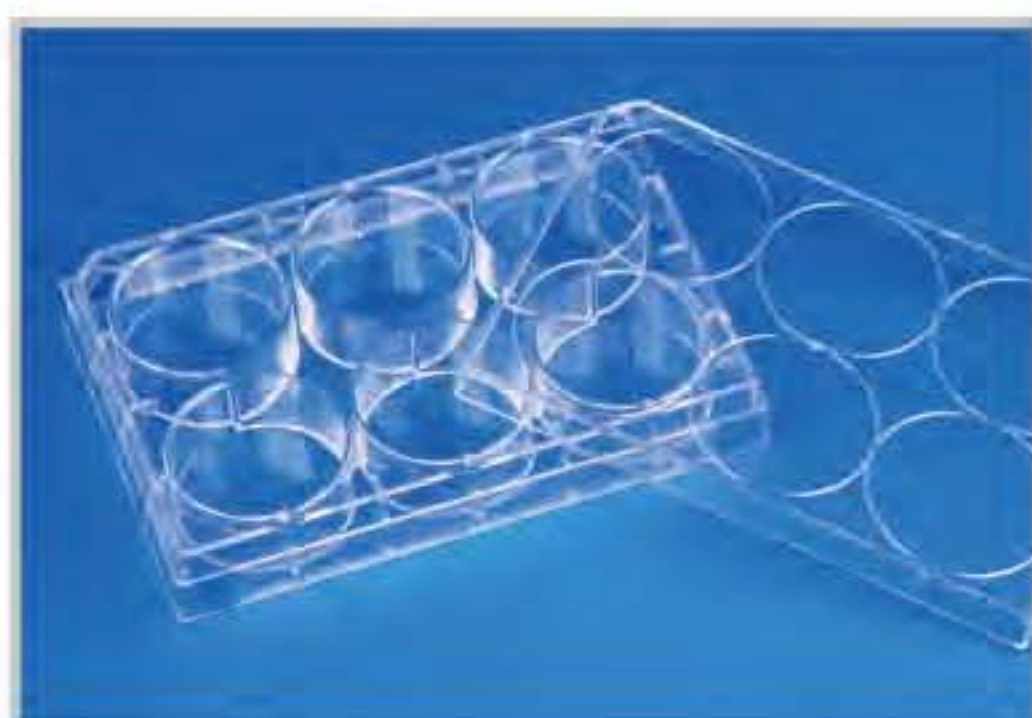
- Uniform wall thickness ensures distortion-free well bottoms
- Either surface-treated or non-treated
- Flat bottom Uniform wall thickness ensures distortion-free bottom
- Dish surface is smooth and free from striation to maximize usable area for growth
- The rim on upper side of the lid mates with the dish brim for easy and secure stack
- Lids with several little chimbs to shape vents are available for very effective gas exchange
- Certified non-pyrogenic
- Gamma radiation sterilization

Order information

Code	Description	Qty/Pack
LBCD035N	Tissue Culture Dish, 3.5cm, Non Treated, sterile; γ-irradiated	20/500
LBCD070N	Tissue Culture Dish, 7.0cm, Non Treated, sterile; γ-irradiated	20/500
LBCD090N	Tissue Culture Dish, 9.0cm, Non Treated, sterile; γ-irradiated	20/300
LBCD150N	Tissue Culture Dish, 15.0cm, Non Treated, sterile; γ-irradiated	5/100
LBCD035S	Tissue Culture Dish, 3.5cm, Surface Treated, sterile; γ-irradiated	20/500
LBCD070S	Tissue Culture Dish, 7.0cm, Surface Treated, sterile; γ-irradiated	20/500
LBCD090S	Tissue Culture Dish, 9.0cm, Surface Treated, sterile; γ-irradiated	20/300
LBCD150S	Tissue Culture Dish, 15.0cm, Surface Treated, sterile; γ-irradiated	5/100

Cell/Tissue Culture

MS® Tissue/Cell Culture plate



Introduction

MS® Culture Plates are ideal for cell culture and cell harvesting; available with five different growth surface areas either surface-treated or non-treated. Growth surface areas are flat and free from striation to maximize usable growth area and transparency. Manufactured of (USP class VI) virgin polystyrene to eliminate all extraneous materials and ensure the integrity of your cells. The surface of treated plates is modified with plasma causing the otherwise very hydrophobic polystyrene surface, to become negatively charged and hydrophilic, allowing cells to attach and multiply. Raised rims on wells reduce the risks of cross-contamination and nestle into rings on the lid to reduce evaporation. One direction lid has venting system that assists in controlling gaseous exchange. A rim on the top of the lid is designed for secure stacking. All plates are sterilized by gamma irradiation and individually packaged in paper/plastic peel pouches; non-pyrogenic.

Feature

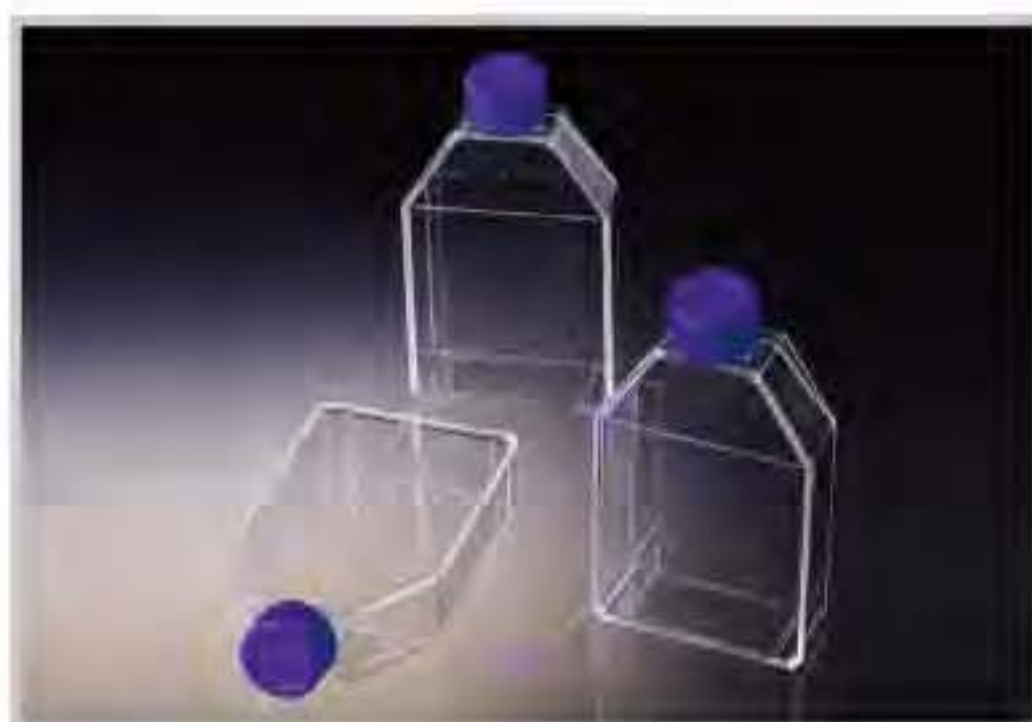
- Uniform wall thickness ensures distortion-free well bottom.
- Each well is labeled with alphanumeric marking.
- Available DNase/RNase free.
- Non-toxic.
- Gamma radiation sterilization.

Ordering information

Item#	Description	Pcs per box
LBCP06N	Tissue Culture Plate, 6 Wells, Non Treated, sterile; γ-irradiated	1/50
LBCP12N	Tissue Culture Plate, 12 Wells, Non Treated, sterile; γ-irradiated	1/50
LBCP24N	Tissue Culture Plate, 24 Wells, Non Treated, sterile; γ-irradiated	1/50
LBCP48N	Tissue Culture Plate, 48 Wells, Non Treated, sterile; γ-irradiated	1/50
LBCP96N	Tissue Culture Plate, 96 Wells, Non Treated, sterile; γ-irradiated	1/100
LBCP06S	Tissue Culture Plate, 6 Wells, Surface Treated, sterile, Individually packed in plastic blister pack	1/50
LBCP12S	Tissue Culture Plate, 12 Wells, Surface Treated, sterile, Individually packed in plastic blister pack	1/50
LBCP24S	Tissue Culture Plate, 24 Wells, Surface Treated, sterile, Individually packed in plastic blister pack	1/50
LBCP48S	Tissue Culture Plate, 48 Wells, Surface Treated, sterile; γ-irradiated	1/50
LBCP96S	Tissue Culture Plate, 96 Wells, Surface Treated, sterile; γ-irradiated	1/100

Cell/Tissue Culture

MS® Tissue/Cell Culture Flask



Introduction

MS® Culture Flasks are perfect manufacture for cell growth and cell yields aim on little and medium input volume. MS® offers the selection of 4 different growth areas of 25, 75 and 150 cm² which are easy to open packaging, variety of flasks and assortment of caps.

Two different cap styles can be used in both open and closed systems, Plug Sealing Caps: Standard polyethylene caps can be used in closed systems, providing a liquid and gas sheer seal. But if you simply unscrew the cap one quarter of a turn, this cap can also be used in open system; Vent Caps: Vented polyethylene caps contain a 0.22µm hydrophobic filter to allow gas exchange and minimize risk of cross-contamination.

Features

- Certified non-phylogenic, being DNA and RNA free
- Sterilized by gamma irradiation
- Full neck support provides horizontal stability-reducing contamination risk
- Design permits access to the entire growth surface-improving cell recovery
- Pull-strip packaging enables easy opening
- Engraved graduation and marking area on both sides
- TC surface treated increases surface wettability for more even and consistent cell attachment.

Plug seal caps are designed for use in closed systems, providing a liquid-and gas-tight seal. When loosened, this cap can also be used in open systems.

Vent caps contain a 0.22 µm pore, hydrophobic PTFE membrane sealed to the cap. This offers protection - as with her hydrophobic characteristics it repels any fluid - with optimal gas exchange at the same time.

Order Information

Code	Description	Pcs/ Bag	Bag/ Case	Qty
LBCF0025N	Tissue Culture Flask, 25cm ² , Non Treated, Plug seal cap, sterile; γ-irradiated	10	20	200
LBCF1025N	Tissue Culture Flask, 25cm ² , Non Treated, Vented, sterile; γ-irradiated	10	20	200
LBCF0075N	Tissue Culture Flask, 75cm ² , Non Treated, Plug seal cap, sterile; γ-irradiated	10	10	100
LBCF1075N	Tissue Culture Flask, 75cm ² , Non Treated, Vented, sterile; γ-irradiated	10	10	100

Cell/Tissue Culture

MS® Tissue/Cell Culture Flask

Code	Description	Pcs/ Bag	Bag/ Case	Qty
LBCF0150N	Tissue Culture Flask, 150cm ² , Non Treated, Plug seal cap, sterile; γ-irradiated	5	8	40
LBCF1150N	Tissue Culture Flask, 150cm ² , Non Treated, Vented, sterile; γ-irradiated	5	8	40
LBCF0025S	Tissue Culture Flask, 25cm ² , TC Treated, Plug seal cap, sterile; γ-irradiated	10	20	200
LBCF1025S	Tissue Culture Flask, 25cm ² TC Treated, Vent cap, sterile; γ-irradiated	10	20	200
LBCF0075S	Tissue Culture Flask, 75cm ² , TC Treated, Plug seal cap, sterile; γ-irradiated	10	10	100
LBCF1075S	Tissue Culture Flask, 75cm ² , TC Treated, Vent cap, sterile; γ-irradiated	10	10	100
LBCF0150S	Tissue Culture Flask, 150cm ² , TC Treated, Plug seal cap, sterile; γ-irradiated	5	8	40
LBCF1150S	Tissue Culture Flask, 150cm ² , TC Treated, Vent cap, sterile; γ-irradiated	5	8	40

Treated Surface

MS® polystyrene cell culture vessels are surface modified using either corona discharge (flasks, dishes and plates) or gas-plasma (roller bottles and culture tubes). These processes generate highly energetic oxygen ions which graft onto the surface polystyrene chains (Figure 1.) so that the surface becomes hydrophilic and negatively charged when medium is added. The more oxygen that is incorporated on to the surface the more hydrophilic it becomes and the better it is for cell attachment and spreading.

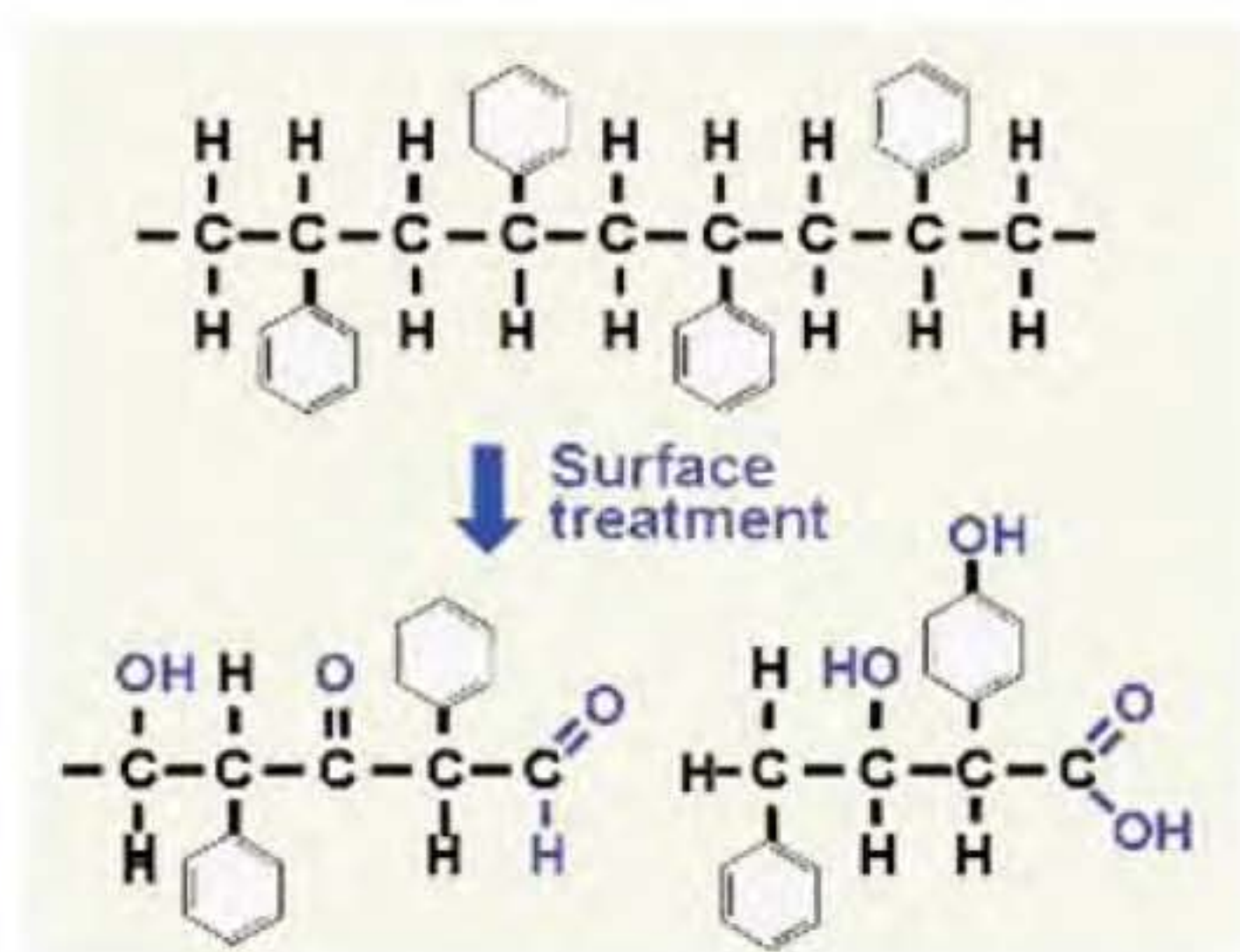


Figure 1. MS's treatment modifies the surface by adding oxygen containing chemical groups or opening the benzene ring (not shown).

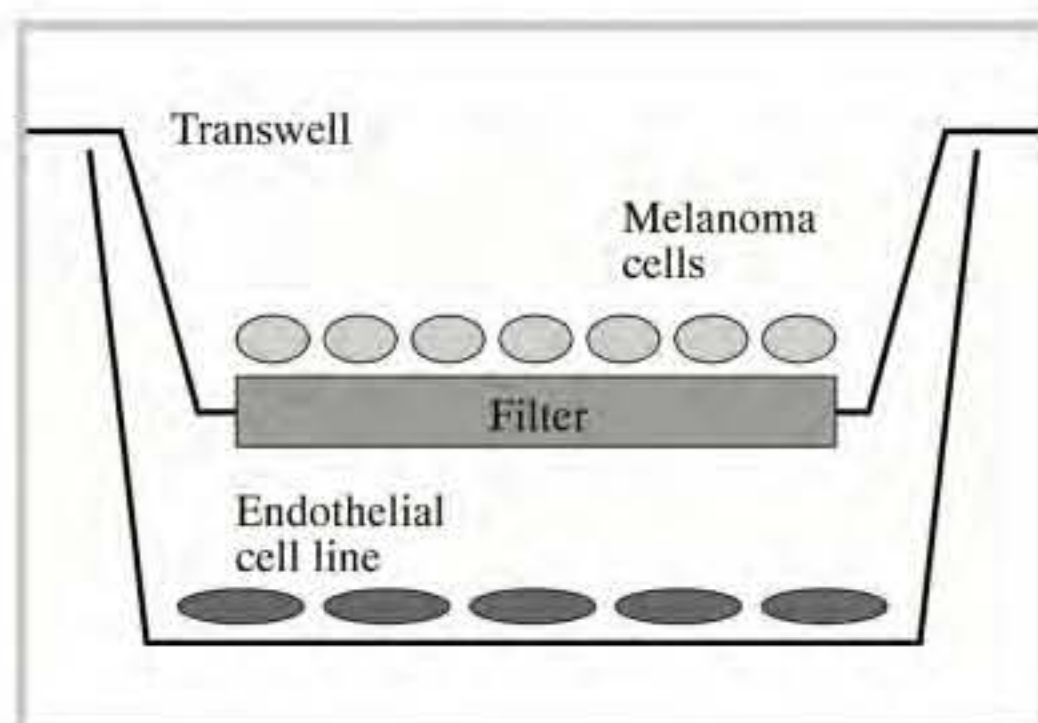
Cell/Tissue Culture

Co-Culture Plate(Insert well)



Description

Both membrane types are transparent when wet and are suitable for phase contrast and Optic Systems. Insert well is polystyrene fitted with a PC membrane bottom for use in 6 and 24-well plates. Available in two mesh sizes and two diameters, provide ultimate flexibility in retaining fragile tissues during processing and staining. 6well insertwell of 24mm diameter and 24well of 12mm diameter.

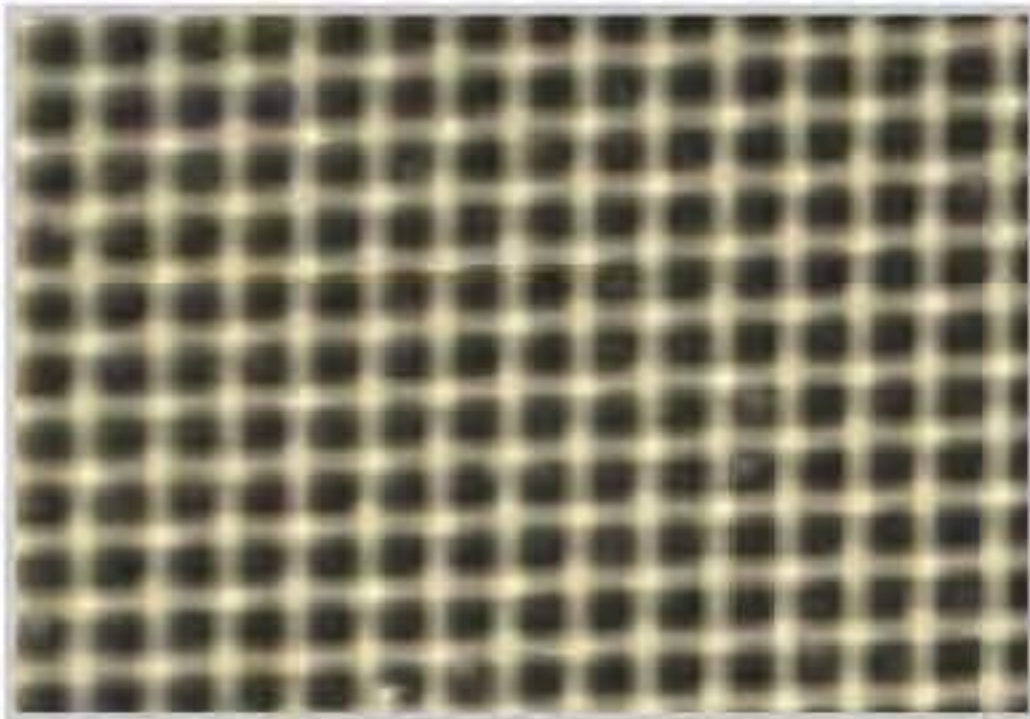
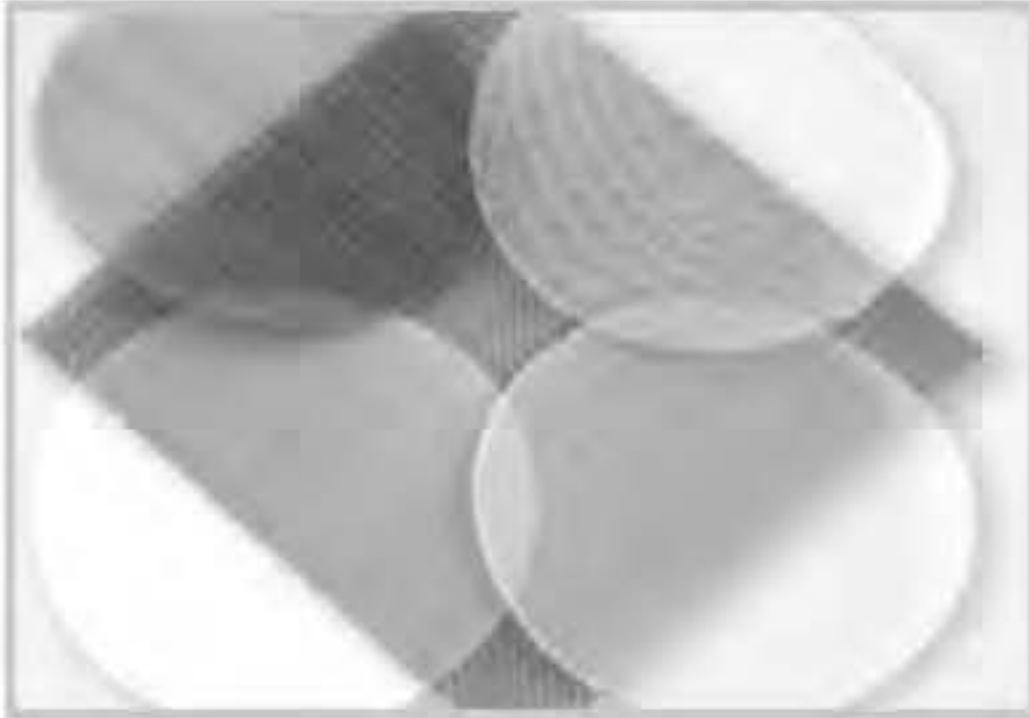


Applications

- Cell culture including transport studies, toxicity tests
- Chemotaxis studies and electron microscopy

Code	Description	Unit	Qty/Cs
LBCCP00406S	6well Plate with 24mm diameter, PC membrane,Pore size:0.4µm	plate	1/5
LBCCP30006S	6well Plate with 24mm diameter, PC membrane,Pore size:3.0µm	plate	1/5
LBCCP00412S	24well Plate with 12mm diameter, PC membrane,Pore size:0.4µm	plate	1/5
LBCCP30012S	24well Plate with 12mm diameter, PC membrane,Pore size:3.0µm	plate	1/5
LBCIW00424S	24mm Insert well, PC membrane, Pore size:0.4µm	well	1/30
LBCIW30024S	24mm Insert well, PC membrane, Pore size:3.0µm	well	1/30
LBCIW00412S	12mm Insert well, PC membrane, Pore size:0.4µm	well	1/60
LBCIW30012S	12mm Insert well, PC membrane, Pore size:3.0µm	well	1/60

MS[®] Nylon Mesh Filter



MS offers a broad range of macro filtration mesh that consist of individual strands woven into a mesh screen, characterized by precise mesh openings, percent open area and mesh thickness.

Nylon Mesh Filters with mesh openings ranging from 10 to 500 μm are available.

MS Mesh can be in accordance with the specifications cut into any shape you need, there are many cutting ways such as laser cutting, cold stamping, ultrasonic stamping. MS develop many sophisticated manufacturing equipment, can be customized out various components, fully meet the most stringent requirements of our customers.

Features

- Hydrophilic
- Compatible with a broad range of solvents, pH resistance: pH 3 - 10
- High strength/durability, strong filtering ability
- Accurate nets pore size and filter geometry size
- Size and thickness of the smoothness are stable
- Stable filter performance
- Sterilization: Gamma, EO compatible or 75% ethanol
- Operating temperature: 75 °C max.
- Customized diameter or size

Applications

- Drinking Water Purification
- Suspended Soils
- Coal Dust Analysis
- Serum Clarification
- Immunological & Diagnostic Assays
- Collection of algae and cells
- Particle analysis and large particulate filtration
- Pre-filtration for FACS
- Colony Transfer
- Cellular & Bacterial Analysis

Cell/Tissue Culture

MS® Nylon Mesh Filter

Specifications

Material	Pore Size (µm)	Thickness (µm)	Open Area (%)	Millipore's Filter Code
Nylon Mesh	10	45	4	NY10
Nylon Mesh	11	65	6	NY11
Nylon Mesh	20	55	14	NY20
Nylon Mesh	30	65	17	NY30
Nylon Mesh	41	50	31	NY41
Nylon Mesh	60	50	41	NY60
Nylon Mesh	80	75	41	NY80
Nylon Mesh	100	80	44	NY1H
Nylon Mesh	120	80	49	NY2H
Nylon Mesh	140	120	43	NY4H
Nylon Mesh	160	100	53	NY6H
Nylon Mesh	180	135	47	NY8H

Order Information

Diameter	25mm	47mm	90mm	30cm×3m
Pore Size				
10µm	MENY025010	MENY047010	MENY090010	MENY303010
11µm	MENY025011	MENY047011	MENY090011	MENY303011
20µm	MENY025020	MENY047020	MENY090020	MENY303020
30µm	MENY025030	MENY047030	MENY090030	MENY303030
41µm	MENY025041	MENY047041	MENY090041	MENY303041
60µm	MENY025060	MENY047060	MENY090060	MENY303060
80µm	MENY025080	MENY047080	MENY090080	MENY303080
100µm	MENY025100	MENY047100	MENY090100	MENY303100
120µm	MENY025120	MENY047120	MENY090120	MENY303120
140µm	MENY025140	MENY047140	MENY090140	MENY303140
160µm	MENY025160	MENY047160	MENY090160	MENY303160
180µm	MENY025180	MENY047180	MENY090180	MENY303180

*Customized/OEM diameter and size are available.

*Large

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Cell/Tissue Culture

Tissue Culture Tube



Culture Tubes

- Manufactured from optically clear polystyrene
- Threaded plug seal caps prevent leakage
- Cell culture treated tubes supplied racked
- Untreated tubes provided bulk packed
- Sterilized by gamma radiation
- Certified nonpyrogenic

Code	Treated	Volume (ml)	max.Centri-fugation (g)	Size(mm)	Qty / Pk	Qty / Cs
LBTCT005N	No	5	1200	16 x 125	25	500
LBTCT005S	Yes	5	1200	16 x 125	50	500

MS® Roller Bottle



The cultivation of cells as mass cultures has become increasingly important over the past few decades and has led to further developments of high-quality products. This includes items such as roller bottles which are used for the production of virus vaccines or recombinant proteins used for therapeutic approaches. MS® roller bottles are made from polystyrene (PS) and feature one-piece seamless construction. The caps are made from high-density polyethylene (HDPE) and are free of heavy metals. Both plastics meet the USP Class VI requirements for plastic containers and closures.

Features

- Available with 1 bottle volume of 2000 mL
- Smooth surface with a 750 cm² growth area for adhesions and huge growth volume for suspension
- Either TC treated or non-treated
- Large knurls on the cap for easy grip, more comfortable manual handling
- 2 different cap styles can be used in both open and closed systems
- Vented caps feature a 0.2µm PTFE hydrophobic membrane for sterile gas exchange
- Each with clear graduate and lot number
- Non-pyrogenic(tolerance limit < 0.06EU/ml)
- Sterile, SAL 10⁻³
- All bottles are manufactured in FDA compliant and ISO 9002 registered manufacturing facilities

Applications

MS® roller bottles are optimal for large yield of cell growth and multiplication, that can be used in both research and manufacturing, including the growing of mammalian cells for purposes of virus vaccines and recombinant proteins used for therapeutic approaches and other biological products which made with cell products.

Order Information

Code	Surface Type	Volume(ml)	Growth area(cm²)	Cap style	Sterile	Package
LBRB2000N1	General, Non-treated	2000	750	Standard	Y	1/12
LBRB2000N2				Vent		
LBRB2000T1	Standard, Treated			Standard		
LBRB2000T2				Vent		

Liquid Handling



Liquid Handling

MS® Serological Pipettes



MS® Serological pipettes are manufactured with exclusively high-grade polystyrene (GPPS) or polyethylene (PE) which are excellent for clear observation and reducing liquid attachment on the pipette surface to assure accurate delivery. The manufacture environment is mastered by both ISO 9001:2000 quality management and 100,000 grade clean-room cleanness systems. Furthermore, the universal design make the pipettes are suitable for most brand of pipette-aid. Additionally, either gamma irradiation sterilized or non-sterilized products are available in order to meet the different research needs and enhance the practicability. All the features guarantee them can be safely used in cell and tissue culture, bacteriological, and clinical research.

Feature

- Serological Pipettes are ideal for accurate liquid transfer or mix
- Available with 5 capacity of 1.0, 2.0, 5.0, 10.0 and 25.0mL
- Available in sterilized or non-sterilized
- 1.0, 2.0 and 5.0mL are stretched, while 10.0 and 25.0mL are ultrasonically welded at tip and mouth-piece
- Graduations are calibrated for accurate dispensing to within $\pm 2\%$
- Color-coded ring for easy identification
- Bidirectional graduations on the pipettes provide added applicability
- Negative graduation allows additional working volume
- All Serological pipettes are supplied with a filter plug
- Strict leakage tested
- Non-pyrogenic

Application

- Tissue culture
- Bacteriology
- Clinical research

Liquid Handling

MS® Serological Pipettes

Specifications

Volume (mL)	1mL	2mL	5mL	10mL	25mL	50mL
Color	Yellow	Green	Blue	Orange	Red	Purple
Material	PS	PS	PS	PS	PS	PS
Volume Graduations(mL)	1/100mL	1/100mL	1/10mL	1/10mL	2/10mL	1/2mL
Length (mm)	277±2.0	277±2.0	341.5±2.0	343±2.0	343±2.0	343±2.0

Order Information

Code	Description	Qty/Pack
LBSP01S	Serological Pipettes, 1.0ml, Yellow, Graduated, Sterile, single-packed	1/1000/4000
LBSP01N	Serological Pipettes, 1.0ml, Yellow, Graduated, Non-sterilized	1/50/6000
LBSP02S	Serological Pipettes, 2.0ml, Green, Graduated, Sterile, single-packed	1/800/3200
LBSP02N	Serological Pipettes, 2.0ml, 1/100ml, Green, Non-sterilized	1/50/4200
LBSP05S	Serological Pipettes, 5.0ml, Blue, Graduated, Sterile, single-packed	1/300/1800
LBSP05N	Serological Pipettes, 5.0ml, Blue, Graduated, Non-sterilized	1/50/3000
LBSP10S	Serological Pipettes, 10.0ml, Orange, Graduated, Sterile, single-packed	1/200/1200
LBSP10N	Serological Pipettes, 10.0ml, Orange, Graduated, Non-sterilized	1/25/2100
LBSP25S	Serological Pipettes, 25.0ml, Red, Graduated, Sterile, single-packed	1/200/800
LBSP25N	Serological Pipettes, 25.0ml, 2/10ml, Red, Non-sterilized	1/25/1400
LBSP50S	Serological Pipettes, 50.0ml, Black, Graduated, Sterile, single-packed	1/100/600
LBSP50N	Serological Pipettes, 50.0ml, Black, Graduated, Non-Sterile	1/25/1000

Cross Reference

MS	TPP	HTL	Nunc	Corning	Corning	Greiner	Greiner	Greiner	BD	BD	BD
LBSP01S	94001	41011	159609	4485	4011/4012	604 107	604 181	604 160	357521	357506	356521
LBSP02S	94002	41021	159617	4486	4021	710 107	710 180	710 160	357508	357507	356507
LBSP05S	94005	41031	159625	4487	4051	606 107	606 180	606 160	357543	356543	357529
LBSP10S	94010	41041	159633	4488	4101	607 107	607 180	607 160	357530	357551	356551
LBSP25S	94024	41051	159641	4489	4251	760 107	760 180	760 160	356525	357525	357515
LBSP50S	None	41061	159668	4490	4501	None	768 180	768 160	None	357550	356550

BIO-PURE® Aspirating Pipettes



Introduction

Disposable Polystyrene Aspirating Pipettes are suitable for most brand of pipette-aid. It can be used for all vacuum-aspirating procedures. Besides, Individually packaged in thermoformed paper/plastic wrap to ensure contamination-resistant presentation.

Feature

- No graduated pipettes
- Can be used for all vacuum-aspirating procedures
- No pyrogenic
- Colorless, transparent
- Gamma radiation sterilization

Application

- Tissue culture
- Bacteriology
- Tissue culture additive filtration

Order Information

Code	Description	Qty/Pack
LBAP01N	Aspirating Pipettes, 1.0ml, Ungraduated, non-sterile	800
LBAP01S	Aspirating Pipettes, 1.0ml, Ungraduated, sterile	800
LBAP02N	Aspirating Pipettes, 2.0ml, Ungraduated, non-sterile	600
LBAP02S	Aspirating Pipettes, 2.0ml, Ungraduated, sterile	600
LBAP05N	Aspirating Pipettes, 5.0ml, Ungraduated, non-sterile	400
LBAP05S	Aspirating Pipettes, 5.0ml, Ungraduated, sterile	400
LBAP10N	Aspirating Pipettes, 10.0ml, Ungraduated, non-sterile	400
LBAP10S	Aspirating Pipettes, 10.0ml, Ungraduated, sterile	400
LBAP25N	Aspirating Pipettes, 25.0ml, Ungraduated, non-sterile	200
LBAP25S	Aspirating Pipettes, 25.0ml, Ungraduated, sterile	200

Liquid Handling

BIO-PURE® Pipette Tips



Introduction

Disposable Pipette Tips are preferred accessories for most brand micropipettor. And are ideal for applications where avoidance of cross contamination is critical, such as DNA amplification and radioisotope handling.

Feature

- Available with 4 transfer volume of 0.1-10, 10-100, 10-200 and 100-1000µL.
- Reduces loss of cells and proteins that bind to glass
- Gamma radiation sterilization

Order Information

Art.No.	Description	Pack (Pcs/Bag)	Pack (Pcs/Case)
LBMT1001S	Pipette Micro Tips, 0.1~10µL,sterile, put in Pipette Micro Tip Box	96	9600
LBMT1020S	Pipette Micro Tips, 10~200µL,sterile, Pipette Micro Tip Box	96	9600
LBMT1100S	Pipette Micro Tips, 100~1000µL,Sterile, Pipette Micro Tip Box	60	6000
LBMT0001S	Pipette Micro Tips, 0.1~10µL, with filter, sterile, put in Pipette Micro Tip Box	96	9600
LBMT0020S	Pipette Micro Tips, 10~200µL,with filter, sterile, Pipette Micro Tip Box	96	9600
LBMT0100S	Pipette Micro Tips, 100~1000µL, with filter, Sterile, Pipette Micro Tip Box	60	6000
LBMT001N	Pipette Micro Tips, 0.1~10µL, Natural color, non-sterile	1000	100000
LBMT020N	Pipette Micro Tips, 10~200µL, yellow, non-sterile	1000	50000
LBMT100N	Pipette Micro Tips, 100~1000µL, Blue, Non-sterilized	500	15000
LBMT101N	Pipette Micro Tips, 0.1~10µL, Natural with filter, non-sterile	1000	10000
LBMT110N	Pipette Micro Tips, 10~200µL, yellow with filter, non-sterile	1000	5000
LBMT1000N	Pipette Micro Tips, 100~1000µL, blue with filter, non-sterile	500	2500
LBMT01	Pipette Micro Tips box, 0.1~10µL, 96 vents	1	100
LBMT02	Pipette Micro Tips, 10~100µL, 96 vents	1	100
LBMT03	Pipette Micro Tips, 20~200µL, 96 vents	1	100
LBMT04	Pipette Micro Tips, 100~1000µL, 60 vents	1	100

Liquid Handling

BIO-PURE® LBPP Pipette Pasteur/Transfer pipettes



Introduction

BIO-PURE® Disposable Pipette Pasteur are manufactured with exclusively high-grade polystyrene (GPPS) or polyethylene (PE) which are excellent for clear observation and reducing liquid attachment on the pipet surface to assure accurate delivery. The manufacture environment is mastered by ISO 9000 quality management.

Feature

- Ideal for sampling and for decanting infectious or toxic liquids.
- Available with 3 capacity of 0.2, 1.0 and 3.0mL
- Safe, convenient use and disposal
- Reduces loss of cells and proteins that bind to glass
- Gamma radiation sterilization
- Long flexible stem can be bent to draw liquid from narrow or small volume tubes into the bulb
- Available with gamma irradiation sterilized or non-sterilized

Application

- Tissue culture
- Bacteriology

Order Information

Art.No.	Description	Pack (Pcs/Bag)	Pack (Pcs/Case)
LBPP05N	Pipette Pasteur/Transfer pipettes, 0.5ml, Non-sterilized	2000	20000
LBPP10N	Pipette Pasteur/Transfer pipettes, 1.0ml, Non-sterilized	500	5000
LBPP20N	Pipette Pasteur/Transfer pipettes, 2.0ml, Non-sterilized	500	5000
LBPP30N	Pipette Pasteur/Transfer pipettes, 3.0ml, Non-sterilized	500	5000
LBPP60N	Pipette Pasteur/Transfer pipettes, 6.0ml, Non-sterilized	500	5000
LBPP05S	Pipette Pasteur/Transfer pipettes, 0.5ml, sterile, individually packed	500	10000
LBPP10S	Pipette Pasteur/Transfer pipettes, 1.0ml, sterile, individually packed	250	5000
LBPP20S	Pipette Pasteur/Transfer pipettes, 2.0ml, sterile, individually packed	250	5000
LBPP30S	Pipette Pasteur/Transfer pipettes, 3.0ml, sterile, individually packed	250	5000
LBPP60S	Pipette Pasteur/Transfer pipettes, 6.0ml, sterile, individually packed	200	5000



Introduction

MS's disposable polystyrene and polycarbonate storage bottles are designed for storing sterile tissue culture media and sera, buffers, biological fluids and other aqueous solutions in convenient, disposable bottles. All plastic storage bottles offer:

- Convenience – sterile, ready to use with no clean up after
- 45mm diameter caps for an air tight seal and help minimize contamination and leaks

Feature

- Disposable polystyrene bottles for storage of media, buffers and other aqueous solutions
- Two styles:
 - . Low profile, easy grip style has sides that facilitate handling
 - . Traditional style has smooth sides
- Plug seal caps (45 mm) provide an airtight seal and help minimize the risk of contamination.
- Bottles can be used with MS® Vacuum Filter Systems
- Sterile, certified nonpyrogenic

Order Information

Code	Description	Qty/Pack
LBRB150N	Roller Bottle for Tissue Culture, GPPS, 150ml, Non-sterilized	24
LBRB250N	Roller Bottle for Tissue Culture, GPPS, 250ml, Non-sterilized	24
LBRB500N	Roller Bottle for Tissue Culture, GPPS, 500ml, Non-sterilized	24
LBRB150S	Roller Bottle for Tissue Culture, GPPS, 150ml, Sterile	24
LBRB250S	Roller Bottle for Tissue Culture, GPPS, 250ml, sterile	24
LBRB500S	Roller Bottle for Tissue Culture, GPPS, 500ml, sterile	24

Mission Statement

To be the worldwide leader in providing a wide variety of quality membrane/filtration products and application expertise, we aim to achieve this through non-stop improving product quality, innovating and expanding new product lines, increasing our efficiency and elevating the superior level of customer service.

Quality Policy

We are committed to provide quality products and services at optimum cost and to continually improve the quality management system through TQM & ISO9001 approach.

- To consistently deliver quality products by adhering to the set specifications, contractual, regulatory and statutory requirements
- To motivate and train staffs for continual improvement of quality standards.
- To update and implement procedures complying with international standards.

Environmental Policy

Understanding that environmental protection is one of the most important issues for the world, and should thus be at the core of business activities, Membrane Solutions LLC has committed itself to "maintaining a strong awareness of our place in nature and a commitment to the environment", as well as to "fulfilling our responsibility, as a corporate citizen, for a better society".












Lab Filtration

MEMBRANE SOLUTIONS, LLC

Catalog

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2009 Catalog



Syringe Filter

MS® Syringe Filters are simply quality filters, well packaged, and offered at a fair and competitive price. The Classic range is available in all of the major membranes including Nylon, CA, PP, Glass Fiber, PTFE, PES, MCE and PVDF which are supplied in 13mm, 25mm and 33mm formats in virgin polypropylene housings.



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
Sterile Syringe Filter With Prefilter					
SFPES013022SG	PES / GF Prefilter	0.22	13	Yes	100
SFPES013045SG	PES / GF Prefilter	0.45	13	Yes	100
SFPES025022SG	PES / GF Prefilter	0.22	25	Yes	100
SFPES025045SG	PES / GF Prefilter	0.45	25	Yes	100
SFPVDF013022SG	PVDF/ GF Prefilter	0.22	13	Yes	100
SFPVDF013045SG	PVDF/ GF Prefilter	0.45	13	Yes	100
SFPVDF025022SG	PVDF/ GF Prefilter	0.22	25	Yes	100
SFPVDF025045SG	PVDF/ GF Prefilter	0.45	25	Yes	100
SFNY013022SG	Nylon/ GF Prefilter	0.22	13	Yes	100
SFNY013045SG	Nylon/ GF Prefilter	0.45	13	Yes	100
SFNY025022SG	Nylon/ GF Prefilter	0.22	25	Yes	100
SFNY025045SG	Nylon/ GF Prefilter	0.45	25	Yes	100

MS® Nylon Syringe Filter (Polyamide)

- Hydrophilic property
- No need to moist beforehand
- Uniform aperture
- Strong tenacity and adsorbability
- Compatible with aqueous and alcoholic solutions and solvents
- Suitable for HPLC



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFNY013022N	Nylon	0.22	13	No	100
SFNY013045N	Nylon	0.45	13	No	100
SFNY025022N	Nylon	0.22	25	No	100
SFNY025045N	Nylon	0.45	25	No	100
SFNY033022N	Nylon	0.22	33	No	100
SFNY033045N	Nylon	0.45	33	No	100

Note: Membrane Solutions offer Customized Pore Sizes: 0.1μm, 0.8μm, 1.0μm, 3.0μm, 5.0μm

MS® MCE Syringe Filter (Mixed Cellulose Ester)

- Uniform aperture
- No fiber migration
- Naturally hydrophilic



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFMCE013022N	MCE	0.22	13	No	100
SFMCE013045N	MCE	0.45	13	No	100
SFMCE025022N	MCE	0.22	25	No	100
SFMCE025045N	MCE	0.45	25	No	100
SFMCE033022N	MCE	0.22	33	No	100
SFMCE033045N	MCE	0.45	33	No	100

Note: Membrane Solutions offer Customized Pore Sizes: 0.8μm, 1.0μm, 3.0μm, 5.0μm



Cat. No.	Volume	Feature	Sterile	Qty/pack
LBPP001002	0.2ml	Graduated	Yes	10000
LBPP000002	0.2ml	Graduated	No	10000
LBPP001010	1.0ml	Graduated	Yes	10000
LBPP000010	1.0ml	Graduated	No	10000
LBPP001030	3.0ml	Graduated	Yes	10000
LBPP000030	3.0ml	Graduated	No	10000
LBPP001050	5.0ml	Graduated	Yes	10000
LBPP000050	5.0ml	Graduated	No	10000

MS® Pipette Micro Tips

- Available with 4 transfer volume of 0.1-10, 10-100, 10-200 and 100-1000µL
- Color-coded for easy identification
- Manufactured from Specially high quality polypropylene
- Available in gamma irradiation sterilized or non-sterilized



Cat. No.	Volume	Feature	Sterile	Qty/pack
LBPPT001010	0.1~10µL	Natural color	Yes	10000
LBPPT000010	0.1~10µL	Natural color	No	10000
LBPPT101010	0.1~10µL	Natural with filter	Yes	1000
LBPPT100010	0.1~10µL	Natural with filter	No	1000
LBPPT001200	10~200µL	Yellow	Yes	10000
LBPPT000200	10~200µL	Yellow	No	10000
LBPPT101100	10~100µL	Natural with filter	Yes	1000
LBPPT100100	10~100µL	Natural with filter	No	1000
LBPPT011000	100~1000µL	Blue	Yes	10000
LBPPT001000	100~1000µL	Blue	No	10000
LBPPT111000	100~1000µL	Natural with filter	Yes	1000
LBPPT101000	100~1000µL	Natural with filter	No	1000

MS® ELISA Plate

- 2 different bottom styles, fixed flat bottom and detachable flat bottom
- 8 or 12 wells strip and 48 or 96 well detachable frames are supplied in order to satisfy different sample quantity and economize cost
- Well surface is uniform, smooth and free from striation to eliminate error
- Wells are labeled with alphanumeric code for easy identification

MS® Sterile Syringe Filters

- MS® Sterile Syringe Filters are available with Polyethersulphone (PES), Polyesteramide(Nylon), Mixed Cellulose Ester(MCE), Polyfluortetraethylene(PTFE), Polyvinylidene fluoride(PVDF). Each filter is individually packed and sterilized by Gama Radiation. Every Syringe Filter is printed with expiry date for easy QC tracking.



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Gamma Sterile	Qty/ pack
Sterile Nylon Syringe Filter					
SFNY013022S	Nylon	0.22	13	Yes	100
SFNY013045S	Nylon	0.45	13	Yes	100
SFNY025022S	Nylon	0.22	25	Yes	100
SFNY025045S	Nylon	0.45	25	Yes	100
SFNY033022S	Nylon	0.22	33	Yes	100
SFNY033045S	Nylon	0.45	33	Yes	100
Sterile MCE Syringe Filter					
SFMCE013022S	MCE	0.22	13	Yes	100
SFMCE013045S	MCE	0.45	13	Yes	100
SFMCE025022S	MCE	0.22	25	Yes	100
SFMCE025045S	MCE	0.45	25	Yes	100
SFMCE033022S	MCE	0.22	33	Yes	100
SFMCE033045S	MCE	0.45	33	Yes	100
Sterile CA Syringe Filter					
SFCA013022S	CA	0.22	13	Yes	100
SFCA013045S	CA	0.45	13	Yes	100
SFCA025022S	CA	0.22	25	Yes	100
SFCA025045S	CA	0.45	25	Yes	100
SFCA033022S	CA	0.22	33	Yes	100
SFCA033045S	CA	0.45	33	Yes	100
Sterile PES Syringe Filter					
SFPES013022S	PES	0.22	13	Yes	100
SFPES013045S	PES	0.45	13	Yes	100
SFPES025022S	PES	0.22	25	Yes	100
SFPES025045S	PES	0.45	25	Yes	100
SFPES033022S	PES	0.22	33	Yes	100
SFPES033045S	PES	0.45	33	Yes	100
Sterile PVDF Syringe Filter					
SFPVDF013022S	PVDF	0.22	13	Yes	100
SFPVDF013045S	PVDF	0.45	13	Yes	100
SFPVDF025022S	PVDF	0.22	25	Yes	100
SFPVDF025045S	PVDF	0.45	25	Yes	100
SFPVDF033022S	PVDF	0.22	33	Yes	100
SFPVDF033045S	PVDF	0.45	33	Yes	100

Lab Filtration

MS® PP Syringe Filter (Polypropylene)

- Naturally hydrophilic membrane
- Wide range of chemical compatibility to organic solvents
- Highly solvent resistant



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPP013022N	PP	0.22	13	No	100
SFPP013045N	PP	0.45	13	No	100
SFPP025022N	PP	0.22	25	No	100
SFPP025045N	PP	0.45	25	No	100

MS® PTFE Syringe Filter (Polyfluortetraethylene)

- Broad chemical compatibility
- Strong chemical stability and inertia
- Strong hydrophobicity



Note:

Membrane Solutions offer Customized Pore Sizes: 0.1μm, 1.0μm, 3.0μm, 5.0μm

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
Hydrophobic PTFE Syringe Filter					
SFPTFE013022NB	PTFE	0.22	13	No	100
SFPTFE013045NB	PTFE	0.45	13	No	100
SFPTFE025022NB	PTFE	0.22	25	No	100
SFPTFE025045NB	PTFE	0.45	25	No	100
SFPTFE033022NB	PTFE	0.22	33	No	100
SFPTFE033045NB	PTFE	0.45	33	No	100
Hydrophilic PTFE Syringe Filter					
SFPTFE013022NL	PTFE	0.22	13	No	100
SFPTFE013045NL	PTFE	0.45	13	No	100
SFPTFE025022NL	PTFE	0.22	25	No	100
SFPTFE025045NL	PTFE	0.45	25	No	100
SFPTFE025045SL	PTFE	0.45	25	Yes	100

MS® Glass Fiber Syringe Filter

- Hydrophilic Material Membrane
- Excellent compatibility with organic solvents and strong acids (apart from hydrofluoric acid) and bases.
- High dirt-handling capacity



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFGF013070N	Glass Fiber	0.7	13	No	100
SFGF013100N	Glass Fiber	1.0	13	No	100
SFGF025070N	Glass Fiber	0.7	25	No	100
SFGF025100N	Glass Fiber	1.0	25	No	100

Lab Filtration

MS® Syringe Filter with Prefilter

- Improve sample volume throughout with prefilter
- High particulate load
- Exceptionally low extractable level with no wetting agents utilized

MS® PTFE Syringe Filter with PP Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPTFE013022NP	PTFE/PP Prefilter	0.22	13	No	100
SFPTFE013045NP	PTFE/PP Prefilter	0.45	13	No	100
SFPTFE025022NP	PTFE/PP Prefilter	0.22	25	No	100
SFPTFE025045NP	PTFE/PP Prefilter	0.45	25	No	100

MS® PES Syringe Filter with PP Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPES013022NP	PES/ PP Prefilter	0.22	13	No	100
SFPES013045NP	PES/ PP Prefilter	0.45	13	No	100
SFPES025022NP	PES/ PP Prefilter	0.22	25	No	100
SFPES025045NP	PES/ PP Prefilter	0.45	25	No	100

MS® PVDF Syringe Filter with PP Prefilter

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPVDF013022NP	PVDF/PP Prefilter	0.22	13	No	100
SFPVDF013045NP	PVDF/ PP Prefilter	0.45	13	No	100
SFPVDF025022NP	PVDF PP Prefilter	0.22	25	No	100
SFPVDF025045NP	PVDF/ PP Prefilter	0.45	25	No	100

MS® Nylon Syringe Filter with PP Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFNY013022NP	Nylon/ PP Prefilter	0.22	13	No	100
SFNY013045NP	Nylon/ PP Prefilter	0.45	13	No	100
SFNY025022NP	Nylon/ PP Prefilter	0.22	25	No	100
SFNY025045NP	Nylon/ PP Prefilter	0.45	25	No	100

MS® PTFE Syringe Filter with Glass Fiber Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPTFE013022NG	PTFE/ GF Prefilter	0.22	13	No	100
SFPTFE013045NG	PTFE/ GF Prefilter	0.45	13	No	100
SFPTFE025022NG	PTFE/ GF Prefilter	0.22	25	No	100
SFPTFE025045NG	PTFE/ GF Prefilter	0.45	25	No	100

MS® PES Syringe Filter with Glass Fiber Prefilter

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPES013022NG	PES/ GF Prefilter	0.22	13	No	100
SFPES013045NG	PES / GF Prefilter	0.45	13	No	100
SFPES025022NG	PES / GF Prefilter	0.22	25	No	100
SFPES025045NG	PES / GF Prefilter	0.45	25	No	100

MS® PVDF Syringe Filter with Glass Fiber Prefilter

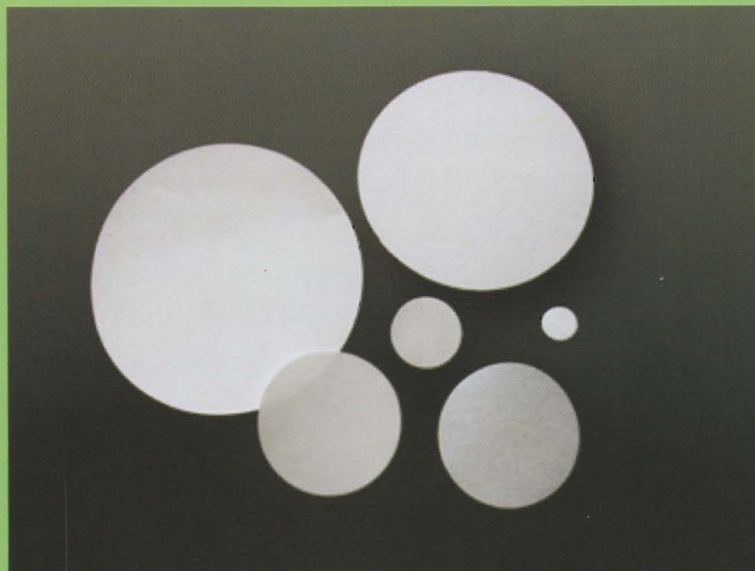


Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPVDF013022NG	PVDF/ GF Prefilter	0.22	13	No	100
SFPVDF013045NG	PVDF/ GF Prefilter	0.45	13	No	100
SFPVDF025022NG	PVDF/ GF Prefilter	0.22	25	No	100
SFPVDF025045NG	PVDF/ GF Prefilter	0.45	25	No	100

MS® Nylon Syringe Filter with Glass Fiber Prefilter

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFNY013022NG	Nylon/ GF Prefilter	0.22	13	No	100
SFNY013045NG	Nylon/ GF Prefilter	0.45	13	No	100
SFNY025022NG	Nylon/ GF Prefilter	0.22	25	No	100
SFNY025045NG	Nylon/ GF Prefilter	0.45	25	No	100

2009 Catalog



Membrane Filter

Membrane filters or "membranes" are microporous films with specific pore size ratings. Membranes retain particles and microorganisms that exceed their pore ratings by acting as a physical barrier and capturing such particles on the surface of the membrane.

Membrane Solutions offers membrane filters in diameters from 13mm to 293mm and materials including PES , MCE, Nylon, PVDF , PTFE and Glass Fiber.



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFMCE013045	MCE	0.45	13	200
MFMCE025045	MCE	0.45	25	100
MFMCE037045	MCE	0.45	37	50
MFMCE047045	MCE	0.45	47	50
MFMCE090045	MCE	0.45	90	25
MFMCE142045	MCE	0.45	142	25
MFMCE293045	MCE	0.45	293	25
MFMCE013080	MCE	0.8	13	200
MFMCE025080	MCE	0.8	25	100
MFMCE037080	MCE	0.8	37	50
MFMCE047080	MCE	0.8	47	50
MFMCE090080	MCE	0.8	90	25
MFMCE142080	MCE	0.8	142	25
MFMCE293080	MCE	0.8	293	25
MFMCE013100	MCE	1.0	13	200
MFMCE025100	MCE	1.0	25	100
MFMCE037100	MCE	1.0	37	50
MFMCE047100	MCE	1.0	47	50
MFMCE090100	MCE	1.0	90	25
MFMCE142100	MCE	1.0	142	25
MFMCE293100	MCE	1.0	293	25
MFMCE013300	MCE	3.0	13	200
MFMCE025300	MCE	3.0	25	100
MFMCE037300	MCE	3.0	37	50
MFMCE047300	MCE	3.0	47	50
MFMCE090300	MCE	3.0	90	25
MFMCE142300	MCE	3.0	142	25
MFMCE293300	MCE	3.0	293	25
MFMCE013500	MCE	5.0	13	200
MFMCE025500	MCE	5.0	25	100
MFMCE037500	MCE	5.0	37	50
MFMCE047500	MCE	5.0	47	50
MFMCE090500	MCE	5.0	90	25
MFMCE142500	MCE	5.0	142	25
MFMCE293500	MCE	5.0	293	25

Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFNY037300	Nylon	3.0	37	100
MFNY047300	Nylon	3.0	47	50
MFNY090300	Nylon	3.0	90	25
MFNY142300	Nylon	3.0	142	25
MFNY293300	Nylon	3.0	293	25
MFNY013500	Nylon	5.0	13	200
MFNY025500	Nylon	5.0	25	100
MFNY037500	Nylon	5.0	37	100
MFNY047500	Nylon	5.0	47	50
MFNY090500	Nylon	5.0	90	25
MFNY142500	Nylon	5.0	142	25
MFNY293500	Nylon	5.0	293	25

MS® PTFE Membrane Filter

- PTFE membrane with supporting layer polyester or polypropylene
- Suitable for applications involving aggressive organic solvents, strong acids, and alkalis
- Hydrophobic nature of the membrane has applications for air and gas sterilization
- High temperature resistance



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPTFE013010B	Hydrophobic PTFE	0.1	13	200
MFPTFE025010B	Hydrophobic PTFE	0.1	25	100
MFPTFE037010B	Hydrophobic PTFE	0.1	37	100
MFPTFE047010B	Hydrophobic PTFE	0.1	47	50
MFPTFE090010B	Hydrophobic PTFE	0.1	90	25
MFPTFE142010B	Hydrophobic PTFE	0.1	142	25
MFPTFE293010B	Hydrophobic PTFE	0.1	293	25
MFPTFE013022B	Hydrophobic PTFE	0.22	13	200
MFPTFE025022B	Hydrophobic PTFE	0.22	25	100
MFPTFE037022B	Hydrophobic PTFE	0.22	37	100
MFPTFE047022B	Hydrophobic PTFE	0.22	47	50
MFPTFE090022B	Hydrophobic PTFE	0.22	90	25
MFPTFE142022B	Hydrophobic PTFE	0.22	142	25
MFPTFE293022B	Hydrophobic PTFE	0.22	293	25
MFPTFE013045B	Hydrophobic PTFE	0.45	13	200
MFPTFE025045B	Hydrophobic PTFE	0.45	25	100
MFPTFE037045B	Hydrophobic PTFE	0.45	37	100
MFPTFE047045B	Hydrophobic PTFE	0.45	47	50
MFPTFE090045B	Hydrophobic PTFE	0.45	90	25
MFPTFE142045B	Hydrophobic PTFE	0.45	142	25
MFPTFE293045B	Hydrophobic PTFE	0.45	293	25
MFPTFE013100B	Hydrophobic PTFE	1.0	13	200
MFPTFE025100B	Hydrophobic PTFE	1.0	25	100



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPTFE037100B	Hydrophobic PTFE	1.0	37	100
MFPTFE047100B	Hydrophobic PTFE	1.0	47	50
MFPTFE090100B	Hydrophobic PTFE	1.0	90	25
MFPTFE142100B	Hydrophobic PTFE	1.0	142	25
MFPTFE293100B	Hydrophobic PTFE	1.0	293	25
MFPTFE013300B	Hydrophobic PTFE	3.0	13	200
MFPTFE025300B	Hydrophobic PTFE	3.0	25	100
MFPTFE037300B	Hydrophobic PTFE	3.0	37	100
MFPTFE047300B	Hydrophobic PTFE	3.0	47	50
MFPTFE090300B	Hydrophobic PTFE	3.0	90	25
MFPTFE142300B	Hydrophobic PTFE	3.0	142	25
MFPTFE293300B	Hydrophobic PTFE	3.0	293	25
MFPTFE013500B	Hydrophobic PTFE	5.0	13	200
MFPTFE025500B	Hydrophobic PTFE	5.0	25	100
MFPTFE037500B	Hydrophobic PTFE	5.0	37	100
MFPTFE047500B	Hydrophobic PTFE	5.0	47	50
MFPTFE090500B	Hydrophobic PTFE	5.0	90	25
MFPTFE142500B	Hydrophobic PTFE	5.0	142	25
MFPTFE293500B	Hydrophobic PTFE	5.0	293	25

MS® PES Membrane Filter

- Inherently hydrophilic
- Low protein binding
- Good chemical compatibility
- Superior thermo stability



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPE013005	PES	0.05	13	200
MFPE025005	PES	0.05	25	100
MFPE037005	PES	0.05	37	100
MFPE047005	PES	0.05	47	50
MFPE090005	PES	0.05	90	25
MFPE142005	PES	0.05	142	25
MFPE013010	PES	0.1	13	200
MFPE025010	PES	0.1	25	100
MFPE037010	PES	0.1	37	100
MFPE047010	PES	0.1	47	50
MFPE090010	PES	0.1	90	25
MFPE142010	PES	0.1	142	25



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPE013022	PES	0.22	13	200
MFPE025022	PES	0.22	25	100
MFPE037022	PES	0.22	37	100
MFPE047022	PES	0.22	47	50
MFPE090022	PES	0.22	90	25
MFPE142022	PES	0.22	142	25
MFPE013045	PES	0.45	13	200
MFPE025045	PES	0.45	25	100
MFPE037045	PES	0.45	37	100
MFPE047045	PES	0.45	47	50
MFPE090045	PES	0.45	90	25
MFPE142045	PES	0.45	142	25
MFPE013065	PES	0.45	13	200
MFPE025065	PES	0.65	25	100
MFPE037065	PES	0.65	37	100
MFPE047065	PES	0.65	47	50
MFPE090065	PES	0.65	90	25
MFPE142065	PES	0.65	142	25
MFPE013100	PES	0.65	13	200
MFPE025100	PES	1.0	25	100
MFPE037100	PES	1.0	37	100
MFPE047100	PES	1.0	47	50
MFPE090100	PES	1.0	90	25
MFPE142100	PES	1.0	142	25

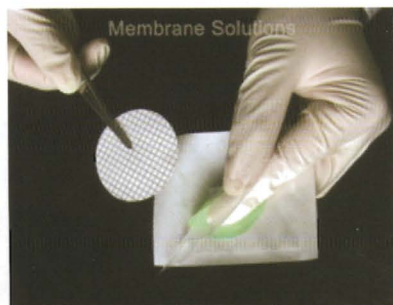
MS® MCE Membrane Filter

- A mixture of nitrocellulose and cellulose acetate
- Naturally hydrophilic
- Available in both supported or non-supported
- High porosity provides superior flow rates
- Ideal for use in lateral flow assays and dot/slot blotting



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFME013022	MCE	0.22	13	200
MFME025022	MCE	0.22	25	100
MFME037022	MCE	0.22	37	50
MFME047022	MCE	0.22	47	50
MFME090022	MCE	0.22	90	25
MFME142022	MCE	0.22	142	25
MFME293022	MCE	0.22	293	25

Lab Filtration

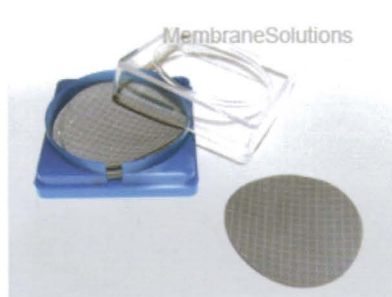
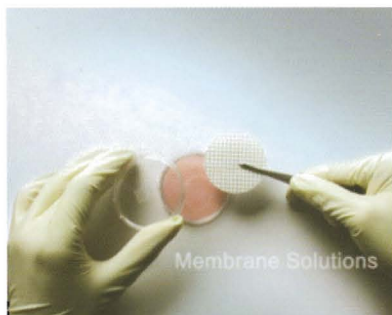


Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFMCCE013045	MCE	0.45	13	200
MFMCCE025045	MCE	0.45	25	100
MFMCCE037045	MCE	0.45	37	50
MFMCCE047045	MCE	0.45	47	50
MFMCCE090045	MCE	0.45	90	25
MFMCCE142045	MCE	0.45	142	25
MFMCCE293045	MCE	0.45	293	25
MFMCCE013080	MCE	0.8	13	200
MFMCCE025080	MCE	0.8	25	100
MFMCCE037080	MCE	0.8	37	50
MFMCCE047080	MCE	0.8	47	50
MFMCCE090080	MCE	0.8	90	25
MFMCCE142080	MCE	0.8	142	25
MFMCCE293080	MCE	0.8	293	25
MFMCCE013100	MCE	1.0	13	200
MFMCCE025100	MCE	1.0	25	100
MFMCCE037100	MCE	1.0	37	50
MFMCCE047100	MCE	1.0	47	50
MFMCCE090100	MCE	1.0	90	25
MFMCCE142100	MCE	1.0	142	25
MFMCCE293100	MCE	1.0	293	25
MFMCCE013300	MCE	3.0	13	200
MFMCCE025300	MCE	3.0	25	100
MFMCCE037300	MCE	3.0	37	50
MFMCCE047300	MCE	3.0	47	50
MFMCCE090300	MCE	3.0	90	25
MFMCCE142300	MCE	3.0	142	25
MFMCCE293300	MCE	3.0	293	25
MFMCCE013500	MCE	5.0	13	200
MFMCCE025500	MCE	5.0	25	100
MFMCCE037500	MCE	5.0	37	50
MFMCCE047500	MCE	5.0	47	50
MFMCCE090500	MCE	5.0	90	25
MFMCCE142500	MCE	5.0	142	25
MFMCCE293500	MCE	5.0	293	25

Lab Filtration

MS® Microbiology Test Membrane Filter(MCE)

- Available in white and black
- Gridded or non-gridded
- Individual pack, pre-sterilized
- Standard for microbiological analysis of water, waste water, and beverages.



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MCE Membrane Filter, White, Gridded, Sterile, Individually packed				
MFMC025022GWS	MCE	0.22	25	100
MFMC037022GWS	MCE	0.22	37	100
MFMC047022GWS	MCE	0.22	47	100
MFMC025045GWS	MCE	0.45	25	100
MFMC037045GWS	MCE	0.45	37	100
MFMC047045GWS	MCE	0.45	47	100
MFMC025080GWS	MCE	0.8	25	100
MFMC037080GWS	MCE	0.8	37	100
MFMC047080GWS	MCE	0.8	47	100
MFMC025100GWS	MCE	1.0	25	100
MFMC037100GWS	MCE	1.0	37	100
MFMC047100GWS	MCE	1.0	47	100
MFMC025300GWS	MCE	3.0	25	100
MFMC037300GWS	MCE	3.0	37	100
MFMC047300GWS	MCE	3.0	47	100
MCE Membrane Filter, Black, Gridded, Sterile, Individually packed				
MFMC025045GBS	MCE	0.45	25	100
MFMC037045GBS	MCE	0.45	37	100
MFMC047045GBS	MCE	0.45	47	100
MFMC025080GBS	MCE	0.8	25	100
MFMC037080GBS	MCE	0.8	37	100
MFMC047080GBS	MCE	0.8	47	100

MS® Absorbent Pad

- Pure cellulose pad will not inhibit any bacterial grow.
- Available non-sterile or sterilized by gamma irradiation.
- Individually packed for pre-sterilized
- Customized diameter is available



Cat. No.	Description	Diameter (mm)	Qty/ pack
MFAP047N	Non-sterile Absorbent Pad	47	100
MFAP047S	Sterile Absorbent Pad, individually packed	47	100
MFAP050N	Non-sterile Absorbent Pad	50	100
MFAP050S	Sterile Absorbent Pad, individually packed	50	100
MFAP015050D	Petri-Pad dish, 55×15mm, with absorbent pad, sterile	50	200

MS® PVDF Membrane Filter

- Wide chemical compatibility
- Excellent mechanical properties
- High temperature capabilities
- Low extractable levels



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPVDF013022	PVDF	0.22	13	200
MFPVDF025022	PVDF	0.22	25	100
MFPVDF037022	PVDF	0.22	37	100
MFPVDF047022	PVDF	0.22	47	50
MFPVDF090022	PVDF	0.22	90	25
MFPVDF142022	PVDF	0.22	142	25
MFPVDF293022	PVDF	0.22	293	25
MFPVDF013045	PVDF	0.45	13	200
MFPVDF025045	PVDF	0.45	25	100
MFPVDF037045	PVDF	0.45	37	100
MFPVDF047045	PVDF	0.45	47	50
MFPVDF090045	PVDF	0.45	90	25
MFPVDF142045	PVDF	0.45	142	25
MFPVDF293045	PVDF	0.45	293	25

Lab Filtration

MS® CA Membrane Filter

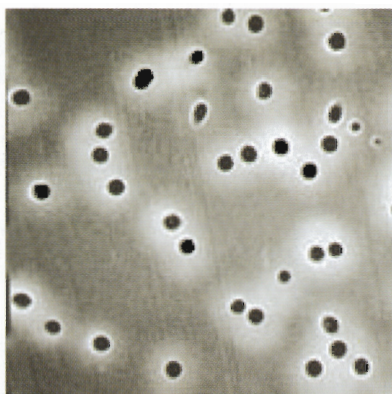
- Hydrophilic
- Very low protein binding capacity
- High physical strength
- Strength and dimension stability



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFCA013022	Cellulose Acetate	0.22	13	200
MFCA025022	Cellulose Acetate	0.22	25	100
MFCA037022	Cellulose Acetate	0.22	37	100
MFCA047022	Cellulose Acetate	0.22	47	50
MFCA090022	Cellulose Acetate	0.22	90	25
MFCA142022	Cellulose Acetate	0.22	142	25
MFCA293022	Cellulose Acetate	0.22	293	25
MFCA013045	Cellulose Acetate	0.45	13	200
MFCA025045	Cellulose Acetate	0.45	25	100
MFCA037045	Cellulose Acetate	0.45	37	100
MFCA047045	Cellulose Acetate	0.45	47	50
MFCA090045	Cellulose Acetate	0.45	90	25
MFCA142045	Cellulose Acetate	0.45	142	25
MFCA293045	Cellulose Acetate	0.45	293	25
MFCA013080	Cellulose Acetate	0.8	13	200
MFCA025080	Cellulose Acetate	0.8	25	100
MFCA037080	Cellulose Acetate	0.8	37	100
MFCA047080	Cellulose Acetate	0.8	47	50
MFCA090080	Cellulose Acetate	0.8	90	25
MFCA142080	Cellulose Acetate	0.8	142	25
MFCA293080	Cellulose Acetate	0.8	293	25
MFCA013300	Cellulose Acetate	3.0	13	200
MFCA025300	Cellulose Acetate	3.0	25	100
MFCA037300	Cellulose Acetate	3.0	37	100
MFCA047300	Cellulose Acetate	3.0	47	50
MFCA090300	Cellulose Acetate	3.0	90	25
MFCA142300	Cellulose Acetate	3.0	142	25
MFCA293300	Cellulose Acetate	3.0	293	25

MS® Polycarbonate (PC) Membrane Filter

- Precise pore sizes and pore distribution for absolute filtration and separation
- Excellent chemical resistance and thermal stability
- Smooth glass-like surface with cylindrical pores for maximum particulate capture
- Optically transparent in most pore sizes



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPC013005	PC	0.05	13	100
MFPC025005	PC	0.05	25	100
MFPC037005	PC	0.05	37	100
MFPC047005	PC	0.05	47	100
MFPC090005	PC	0.05	90	30
MFPC142005	PC	0.05	142	25
MFPC293005	PC	0.05	293	25
MFPC013010	PC	0.1	13	100
MFPC025010	PC	0.1	25	100
MFPC037010	PC	0.1	37	100
MFPC047010	PC	0.1	47	100
MFPC090010	PC	0.1	90	30
MFPC142010	PC	0.1	142	25
MFPC293010	PC	0.1	293	25
MFPC013020	PC	0.2	13	100
MFPC025020	PC	0.2	25	100
MFPC037020	PC	0.2	37	100
MFPC047020	PC	0.2	47	100
MFPC090020	PC	0.2	90	30
MFPC142020	PC	0.2	142	25
MFPC293020	PC	0.2	293	25
MFPC013040	PC	0.4	13	100
MFPC025040	PC	0.4	25	100
MFPC037040	PC	0.4	37	100
MFPC047040	PC	0.4	47	100
MFPC090040	PC	0.4	90	30
MFPC142040	PC	0.4	142	25
MFPC293040	PC	0.4	293	25
MFPC013080	PC	0.8	13	100
MFPC025080	PC	0.8	25	100
MFPC037080	PC	0.8	37	100
MFPC047080	PC	0.8	47	100

Lab Filtration

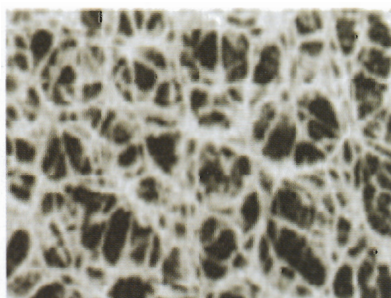
Note:

- Other sizes and pore sizes available upon request

Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPC090080	PC	0.8	90	30
MFPC142080	PC	0.8	142	25
MFPC293080	PC	0.8	293	25
MFPC013100	PC	1.0	13	200
MFPC025100	PC	1.0	25	100
MFPC037100	PC	1.0	37	100
MFPC047100	PC	1.0	47	100
MFPC090100	PC	1.0	90	30
MFPC142100	PC	1.0	142	25
MFPC293100	PC	1.0	293	25
MFPC013300	PC	3.0	13	100
MFPC025300	PC	3.0	25	100
MFPC037300	PC	3.0	37	100
MFPC047300	PC	3.0	47	100
MFPC090300	PC	3.0	90	30
MFPC142300	PC	3.0	142	25
MFPC293300	PC	3.0	293	25
MFPC013500	PC	5.0	13	100
MFPC025500	PC	5.0	25	100
MFPC037500	PC	5.0	37	100
MFPC047500	PC	5.0	47	100
MFPC090500	PC	5.0	90	30
MFPC142500	PC	5.0	142	25
MFPC293500	PC	5.0	293	25
MFPC013800	PC	8.0	13	100
MFPC025800	PC	8.0	25	100
MFPC037800	PC	8.0	37	100
MFPC047800	PC	8.0	47	100
MFPC090800	PC	8.0	90	30
MFPC142800	PC	8.0	142	25
MFPC293800	PC	8.0	293	25

MS® Regenerated Cellulose(RC) Membrane Filter

- Hydrophilic
- Easily wettable
- Resistant to almost all solvents and aqueous solutions in pH range 3-12
- Low non-specific of adsorption

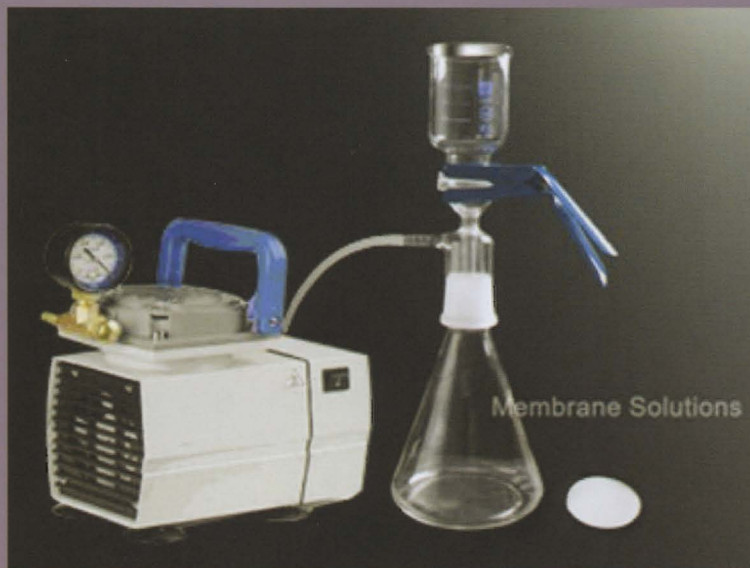


Note:

- Other sizes available upon request

Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFRC013022	RC	0.22	13	100
MFRC025022	RC	0.22	25	100
MFRC037022	RC	0.22	37	100
MFRC047022	RC	0.22	47	100
MFRC090022	RC	0.22	90	25
MFRC142022	RC	0.22	142	25
MFRC013045	RC	0.45	13	100
MFRC025045	RC	0.45	25	100
MFRC037045	RC	0.45	37	100
MFRC047045	RC	0.45	47	100
MFRC090045	RC	0.45	90	25
MFRC142045	RC	0.45	142	25

2009 Catalog



Vacuum Filter Series

Vacuum Filter is used primarily in microbiological and analytical procedures that involve collecting a particulate (bacteria, precipitate, etc.) from a liquid suspension. Liquid poured into a funnel passes through a filter, which retains the particulate, and filtrate can be collected into a filter flask, directly or via a vacuum manifold. Applying vacuum reduces process time compared to gravity flow.

Lab Filtration

MS® Glass Solvent Filter

- All-glass design restricts contact with reactive surfaces such as steel or rubber to minimize contamination of sample or filtrate.
- Standard 47/50mm filtration funnels mount on filtration flask using a ground glass joint.
- Outlet of support base drip tube is positioned below the side arm connection to prevent sample aspiration into vacuum line.
- All wetted surfaces are borosilicate glass with the exception of stainless steel and PTFE support options.
- Compatible with aqueous and alcoholic solutions and solvents; suitable for HPLC.



Technical Specifications

Material

Funnel, base unit and flask	Borosilicate glass
Support	Borosilicate glass frit, stainless steel, or PTFE

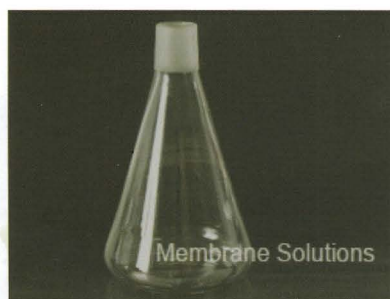
Connection

Ground glass joint	14/20 female, 40/35 female
Side arm	6 mm (3/8 inch), 6 mm (3/8 inch)

Capacity

Funnel	250ml, 300ml, 500ml
Receiver flask	1000ml, 2000ml
Suitable Membrane	φ47 or φ50, φ60

Cat. No.	Description	Qty/pack
VFG025005	1) 250ml Glass Funnel with cover	1set
	2) 500ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG030005	1) 300ml Glass Funnel with cover	1set
	2) 500ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG025010	1) 250ml Glass Funnel with cover	1set
	2) 1000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	



Cat. No.	Description	Qty/pack
VFG030010	1) 300ml Glass Funnel with cover	1set
	2) 1000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG025020	1) 250ml Glass Funnel with cover	1set
	2) 2000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG030020	1) 300ml Glass Funnel with cover	1set
	2) 2000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG147SS	Pyrex glass support screen	1set
VFG047SS	Pyrex glass support screen	1set
VFG010RB	Solvent Collection Bottle, 1000ml	1set
VFG020RB	Solvent Collection Bottle, 2000ml	1set

MS® Disposable Plastic Vacuum Filters

- Funnel is manufactured from optically clear polystyrene and graduated.
- Receiver bottle and filter adapter are manufactured from 100% virgin polypropylene.
- Hose connector is designed to accept multiple hose diameter and features an easy gripping collar to simplify tightening/loosening and adjustment.
- Individually wrapped sterile, certified RNase-free, DNase-free, non-pyrogenic, and DNA free.



Funnel Capacity	Filter Diameter	Process Volume	Hold-up Volume after purge	Maximum Operating Temperature	Fitting Outlet (Thread)	Full Unit Overall Height	Housing Material
150mL	50mm	150mL	3mL	45	45mm	156mm	ABS
250mL	50mm	250mL	3mL	45	45mm	156mm	ABS
500mL	50mm	500mL	3mL	45	45mm	156mm	ABS



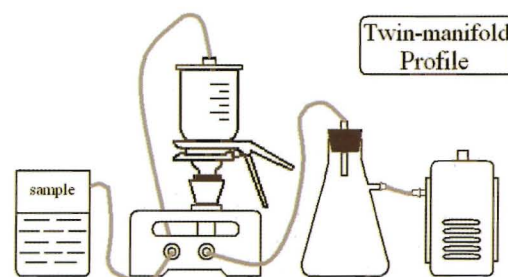
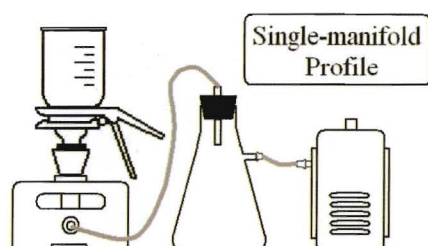
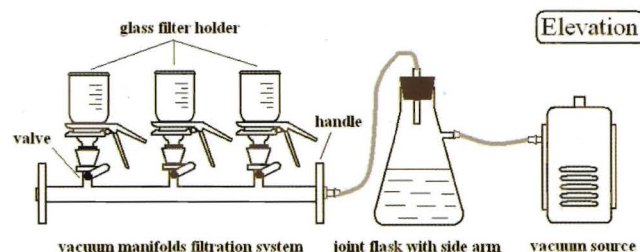
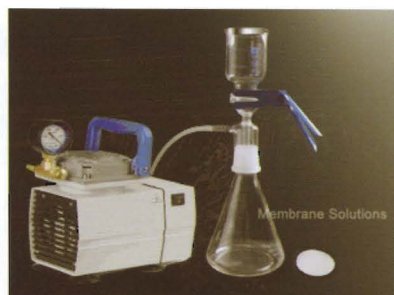
Cat. No.	Funnel Capacity(ml)	Filter Pore Size(μ m)	Filter Medium	Qty/ pack
Plastic Vacuum Filter				
VFPPVDF110150	150	0.1	PVDF	12
VFPPVDF122150	150	0.22	PVDF	12
VFPPES122150	150	0.22	PES	12
VFPMCE122150	150	0.22	MCE	12
VFPPVDF145150	150	0.45	PVDF	12
VFPPES145150	150	0.45	PES	12
VFPMCE145150	150	0.45	MCE	12
VFPNY145150	150	0.45	Nylon	12
VFPPVDF110250	250	0.1	PVDF	12
VFPPVDF122250	250	0.22	PVDF	12
VFPPES122250	250	0.22	PES	12
VFPMCE122250	250	0.22	MCE	12
VFPPVDF145250	250	0.45	PVDF	12
VFPPES145250	250	0.45	PES	12
VFPMCE145250	250	0.45	MCE	12
VFPNY145250	250	0.45	Nylon	12
VFPPVDF110250	500	0.1	PVDF	12
VFPPVDF122500	500	0.22	PVDF	12
VFPPES122500	500	0.22	PES	12
VFPMCE122500	500	0.22	MCE	12
VFPPVDF145500	500	0.45	PVDF	12
VFPPES145500	500	0.45	PES	12
VFPMCE145500	500	0.45	MCE	12
VFPNY145500	500	0.45	Nylon	12
Filter Funnel Cups				
VFPPVDF110150F	150	0.1	PVDF	24
VFPPVDF122150F	150	0.22	PVDF	24
VFPPES122150F	150	0.22	PES	24
VFPMCE122150F	150	0.22	MCE	24
VFPPVDF145150F	150	0.45	PVDF	24
VFPPES145150F	150	0.45	PES	24
VFPMCE145150F	150	0.45	MCE	24
VFPNY145150F	150	0.45	Nylon	24
VFPPVDF110250F	250	0.1	PVDF	24
VFPPVDF122250F	250	0.22	PVDF	24
VFPPES122250F	250	0.22	PES	24
VFPMCE122250F	250	0.22	MCE	24
VFPPVDF145250F	250	0.45	PVDF	24

Cat. No.	Funnel Capacity(ml)	Filter Pore Size(μ m)	Filter Medium	Qty/ pack
Filter Funnel Cups				
VFPNY145250F	250	0.45	Nylon	24
VFPPVDF110250F	500	0.1	PVDF	24
VFPPVDF122500F	500	0.22	PVDF	24
VFPPEs122500F	500	0.22	PES	24
VFPMC122500F	500	0.22	MCE	24
VFPPVDF145500F	500	0.45	PVDF	24
VFPPEs145500F	500	0.45	PES	24
VFPMCE145500F	500	0.45	MCE	24
VFPNY145500F	500	0.45	Nylon	24

Cat. No.	Capacity(ml)	Material	Qty /Pack
Reservoir Bottles			
VFP150B	250	PP	12
VFP250B	500	PP	12
VFP500B	500	PP	12

MS® Multiple Vacuum Filtration Systems

- Each station use separate control valve for independent operation.
- Sturdy units have low center of gravity so they won't tip when full loaded.
- Anodized aluminium handles on both ends for positioning on bench top.



2009 Catalog



Labware

Membrane Solutions, LLC provides quality lab products and services for the life science community.

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11/12

Vacufil™ Disposable Vacuum Filtration Units

Vacufil™ Disposable Vacuum Filtration Units are used for filtering and storing cell culture and tissue culture media, biological fluids and other aqueous solutions.



Funnel: 250, 500ml

GF Prefilter (Optional)

Membrane: PES, MCE, CA, Nylon, PVDF

Pore Size: 0.22, 0.45µm

Membrane Diameter: 50, 90 mm

Vacufil™ Certified

- ✓ **Sterile;**
- ✓ **Non-pyrogen;**
- ✓ **Detergent-free;**
- ✓ **Individual packaged.**

Receiver Bottle: 250, 500, 1000ml

Selection Guide

1st Step: Select your membrane material

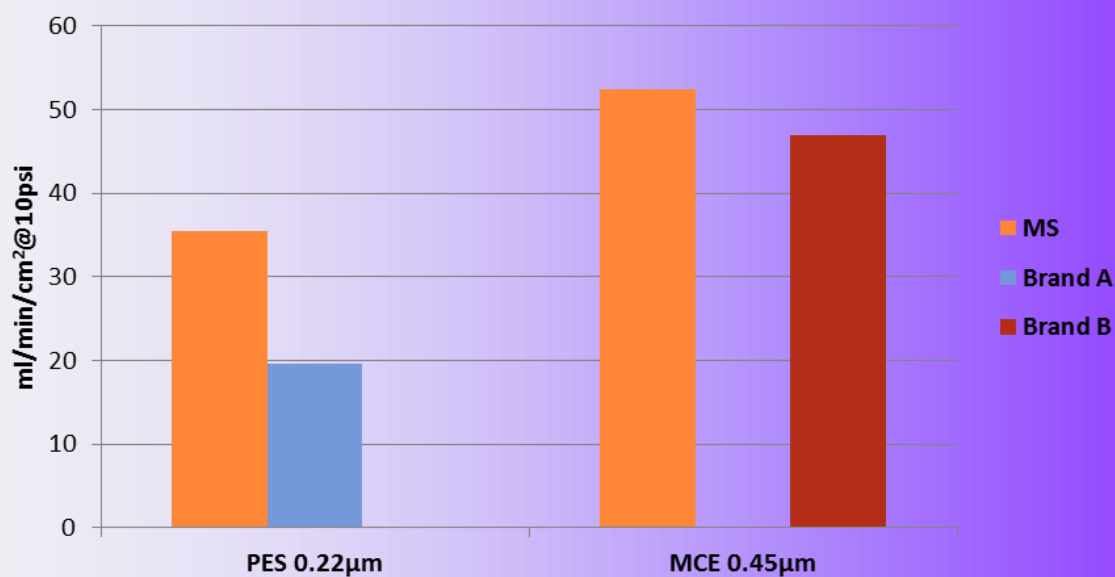
Color of collar	Membrane Material	Description
Green	PES	The fastest flow rate, the lowest protein binding and low extractable and are best for filtering cell culture media.
Dark blue	MCE	Filtration of aqueous solutions, effectively binds trace proteins.
Blue	CA	Fast flow rates and low protein binding are good for filtering cell culture media.
Purple	Nylon	Naturally hydrophilic, surfactant-free and offer the lowest extractable.
Yellow	Hydrophilic PVDF	Suitable for aqueous solutions and organic solvent filtration.

2nd Step: Select your membrane pore size

Pore Size(µm)	Application
0.22	Routine laboratory sterilization of most media, buffers and biological fluids
0.45	Clarification and Prefiltration of solutions and solvents



Vacuum Filter Flow Rate



Order Information

Filter Unit Funnel/ Receiver (Diameter)		PES	MCE	CA	Nylon	PVDF
250/ 250 (50mm)	0.22	VFPPES122250	VFPMCE122250	VFPCA122250	VFPNY122250	VFPPVDF122250
	0.45	VFPPES145250	VFPMCE145250	VFPCA145250	VFPNY145250	VFPPVDF145250
250/ 500 (50mm)	0.22	VFPPES122500	VFPMCE122500	VFPCA122500	VFPNY122500	VFPPVDF122500
	0.45	VFPPES145500	VFPMCE145500	VFPCA145500	VFPNY145500	VFPPVDF145500
500/ 500 (90mm)	0.22	VFPPES222500	VFPMCE222500	VFPCA222500	VFPNY222500	VFPPVDF222500
	0.45	VFPPES245500	VFPMCE245500	VFPCA245500	VFPNY245500	VFPPVDF245500
500/ 1000 (90mm)	0.22	VFPPES2221000	VFPMCE2221000	VFPCA2221000	VFPNY2221000	VFPPVDF2221000
	0.45	VFPPES2451000	VFPMCE2451000	VFPCA2451000	VFPNY2451000	VFPPVDF2451000

Besides filter units, individual wrapped Funnel and Receiver Bottle are available.

Related Products



Bioset Monitor




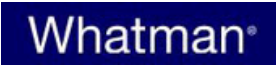






Petri Dish



MCE Gridded Membrane









Cross Reference Syringe Filter Units

Syringe Filters
Alternative parts are based on a direct technical comparison
Part number alternatives are based upon closest pack quantity.
Inclusion of parts is no guarantee of identical performance.

		GD/X	Puradisc	EasyDisc	Millex	Acrodisc	Cameo	Cronus		Target
										
DESCRIPTION	Chromacol	Whatman	Whatman	Whatman	Millipore	PALL	GE Osmonics	LabHut	Kinesis	NSC
30mm Syringe Filter 0.45um Nylon	30-SF-45(N)	6870-2504	6750-2502	6710-2504	SLHN025NS		4438	1224112 FFNN2545-100	SFNY2545	F2500-1
30mm Syringe Filter 0.2um Polypropylene	30-SF-02(PP)	6785-2502					4564	1224172		F2500-10
30mm Syringe Filter 5.0um PTFE	30-SF-50(T)								SFPT2550	F2500-11
30mm Syringe Filter 1.2um Nylon	30-SF-12(N)								SFNY2512	F2500-12
30mm Syringe Filter 1.0um PTFE	30-SF-10(T)								SFPT2510	F2500-13
30mm Syringe Filter 0.45um PES for Ion Chromatography	30-SF-45(PES)	6878-2504	6780-2504	6716-2504	SLHP033NS	4584	1233550		SFPE25451	F2500-14
30mm Syringe Filter 0.45um Cellulose Acetate	30-SF-45(CA)	6880-2504					1214778 FFCA2545-100		SFCA2545	F2500-15
30mm Syringe Filter 0.2um Cellulose Acetate	30-SF-02(CA)	6880-2502					1213641		SFCA2520	F2500-16
30mm Syringe Filter 0.2um PES for Ion Chromatography	30-SF-02(PES)	6878-2502	6780-2502		SLGP033NS		1233549		SFPE2520	F2500-17
30mm Syringe Filter 0.7um Glass Micro Fiber	30-SF-07(GMF)	6890-2507							SFGF2507	F2500-18
30mm Syringe Filter 1.2um Glass Micro Fiber	30-SF-12(GMF)	6886-2512							SFGF2512	F2500-19
30mm Syringe Filter 0.2um Nylon	30-SF-02(N)	6870-2502	6750-2502		SLGN025NS	4436	1224104 FFNN2502-100		SFGF2531	F2500-20
30mm Syringe Filter 3.1um Glass Micro Fiber	30-SF-31(GMF)	6888-2527								F2500-3
30mm Syringe Filter 0.45um PTFE	30-SF-45(T)	6874-2504	6784-2504	6714-2504	SLFH025NS	4219	1224150 FFPT2545-100			F2500-4
30mm Syringe Filter 0.2um PTFE	30-SF-02(T)	6874-2502	6784-2502		SLFG025NS	4225	1224143 FFPT2502-100		SFPT2520	F2500-5
30mm Syringe Filter 0.45um PVDF	30-SF-45(PV)	6872-2504		6712-2504	SLHV033NS	4408		FFPV2545-100	SFPV2545	F2500-6
30mm Syringe Filter 5.0um Nylon	30-SF-50(N)								SFNY2550	F2500-7
30mm Syringe Filter 0.2um PVDF	30-SF-02(PV)	6872-2502			SLGV025NB	4406			SFPV2520	F2500-8
30mm Syringe Filter 0.45um Regenerated Cellulose	30-SF-45(RC)							FFRC2545-100		F2500-9
30mm Syringe Filter 0.2um Regenerated Cellulose	30-SF-02(RC)							FFRC2502-100	SFRC2520	F2502-1
30mm Syringe Filter 0.45um Polypropylene	30-SF-45(PP)			6718-2504		4560	1224310		SFPP2545	F2502-10
30mm Syringe Filter 0.45um Nylon with Pre-filter	30-SF-45(N)P	6870-2504				4549	1224135 FPNN2545-100			F2502-3
30mm Syringe Filter 0.20um Polypropylene with Pre-filter	30-SF-02(PP)P	6878-2502				4307	1224175			F2502-9
30mm Syringe Filter 0.45um PTFE with Pre-filter	30-SF-45(T)P	6874-2504				4303	1224164		SFPT2545P	
30mm Syringe Filter 0.45um Polypropylene with Pre-filter	30-SF-45(PP)P	6878-2504				4559	1224313		SFPP2545P	

Cross Reference Syringe Filter Units

Syringe Filters
Alternative parts are based on a direct technical comparison
Part number alternatives are based upon closest pack quantity.
Inclusion of parts is no guarantee of identical performance.

		GD/X	Puradisc	EasyDisc	Millex	Acrodisc	Cameo	Cronus		Target
										
DESCRIPTION	Chromacol	Whatman	Whatman	Whatman	Millipore	PALL	GE Osmonics	LabHut	Kinesis	NSC
4mm Syringe Filter 0.45um Nylon	4-SF-45(N)		6789-0404		SLHNR04NL		4484	FFNN0445-100	SFNY0445	F2504-1
4mm Syringe Filter 0.2um Polypropylene	4-SF-02(PP)		6788-0402						SFPP0420	F2504-10
4mm Syringe Filter 0.45um Cellulose Acetate	4-SF-45(CA)						1213700		SFCA0445	F2504-15
4mm Syringe Filter 0.2um Cellulose Acetate	4-SF-02(CA)								SFCA0420	F2504-16
4mm Syringe Filter 0.2um Nylon	4-SF-02(N)		6789-0402		SLGNR04NL		1213705	FFNN0402-100	SFNY0420	F2504-2
4mm Syringe Filter 0.45um PTFE	4-SF-45(T)		6783-0404		SLFHR04NL	4472	1213721	FFPT0445-100	SFPT0445	F2504-3
4mm Syringe Filter 0.2um PTFE	4-SF-02(T)		6783-0402		SLFGR04NL			FFPT0402-100	SFPT0420	F2504-4
4mm Syringe Filter 0.45um PVDF	4-SF-45(PV)		6779-0404		SLHVR04NL			FFPV0445-100	SFPV0445	F2504-5
4mm Syringe Filter 0.2um PVDF	4-SF-02(PV)		6779-0402		SLGVR04NL	4415		FFPV0402-100	SFPV0420	F2504-6
4mm Syringe Filter 0.45um Regenerated Cellulose	4-SF-45(RC)							FFRC0445-100	SFRC0445	F2504-7
4mm Syringe Filter 0.2um Cellulose Acetate	4-SF-02(CA)						1213629		SFCA0420	F2504-8
4mm Syringe Filter 0.45um Polypropylene	4-SF-45(PP)		6788-0404						SFPP0445	F2504-9
17mm Syringe Filter 0.45um Nylon	17-SF-45(N)	6870-1304	6789-1304		SLHN013NL	4426	1224753	FFNN1345-100	SFNY1345	F2513-1
17mm Syringe Filter 0.2um Polypropylene	17-SF-02(PP)		6788-1302			4567	1224808		SFPP1320	F2513-10
17mm Syringe Filter 0.45um PES for Ion Chromatography	17-SF-45(PES)		6782-1304				1233548		SFPE1345	F2513-14
17mm Syringe Filter 0.45um Cellulose Acetate	17-SF-45(CA)	6880-1304					1225620	FFCA1345-100	SFCA1345	F2513-15
17mm Syringe Filter 0.2um Cellulose Acetate	17-SF-02(CA)	6880-1302					1225617		SFCA1320	F2513-16
17mm Syringe Filter 0.2um PES for Ion Chromatography	17-SF-02(PES)	6876-1302	6782-1302				1233547		SFPE1320	F2513-17
17mm Syringe Filter 0.2um Nylon	17-SF-02(N)	6870-1302	6789-1302		SLGN013NL	4427	1224746	FFNN1302-100	SFNY1320	F2513-2
17mm Syringe Filter 0.45um PTFE	17-SF-45(T)	6874-1304	6783-1304		SLFH013NL	4422	1224787	FFPT1345-100	SFPT1345	F2513-3
17mm Syringe Filter 0.2um PTFE	17-SF-02(T)	6874-1302	6783-1302		SLFG013NL	4423	1224780	FFPT1302-100	SFPT1320	F2513-4
17mm Syringe Filter 0.45um PVDF	17-SF-45(PV)	6872-1304	6779-1304		SLHV013NL	4457		FFPV1345-100	SFPV1345	F2513-5
17mm Syringe Filter 0.2um PVDF	17-SF-02(PV)	6872-1302	6779-1302		SLGV013NL	4455		FFPV1302-100	SFPV1320	F2513-6
17mm Syringe Filter 0.45um Regenerated Cellulose	17-SF-45(RC)							FFRC1345-100	SFRC1345	F2513-7
17mm Syringe Filter 0.2um Regenerated Cellulose	17-SF-02(RC)							FFRC1302-100	SFRC1320	F2513-8
17mm Syringe Filter 0.45um Polypropylene	17-SF-45(PP)	6784-1304	6788-1304			4563	1224811		SFPP1345	F2513-9

Notes

1. All part numbers are for equivalent pack sizes of between 50 and 250 units.

2. 25mm devices are comparable and are compared to 30mm units

3. 13mm devices are comparable and compared to 17mm units

4. All trademarks are acknowledged

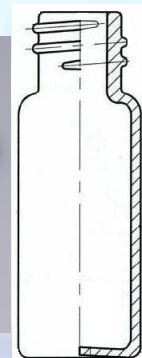
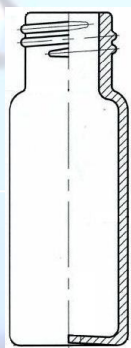
5. Prefilter units use GMF fiber of 1um porosity

MS® Sample Vials for Chromatography

11mm Crimp & Screw Cap 2ml 12x32 8-425 and 9-425



... 4ml 13-425 Screw, Headspace 20, 40, 60ml 24-425 Screw ...
pre-cleaned VOA HS Grade ... also Available



Caps and Septa available separately ... if required

MS® Sample Vials

MS® Sample vial are made from first hydrolytical class, borosilicate glass, compliant with the requirements of U.S. and European Pharmacopeia which improves your laboratory productivity, by reducing costs and saving time. These products considerably reduce the risk of analytical test results compromised by ghost peaks, damaged needles or dislodged septa, decreasing analysis failures and sample reruns.

MS® offer Type 1, 51-expansion glass vials and type-2, 33- expansion glass vials.

Feature

- LCGC certificate
- High quality glass Type 1, 51-expansion glass (clear and amber) and type-2, 33- expansion glass (only clear)
- Computerized camera system for quality control throughout the manufacturing process to test critical dimensions, including Height, Diameter, Bottom Thickness and Neck/Thread.
- Compatible with a wide range of HPLC, LCMS and GC Instruments
- Pre-packs including 100 vials and caps for ease and convenience in ordering
- Vials and caps and septas also available separately
- Meet standards set by governing bodies
- Tightest dimensional tolerances in industry

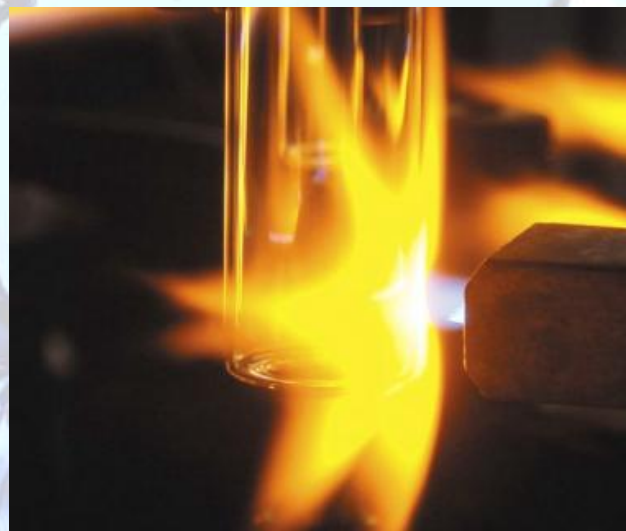
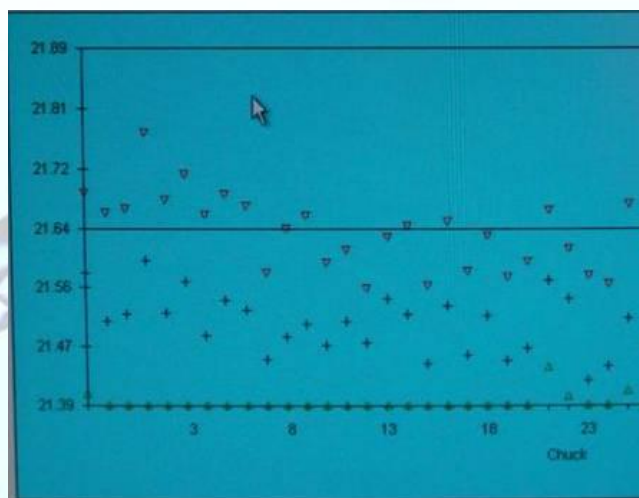
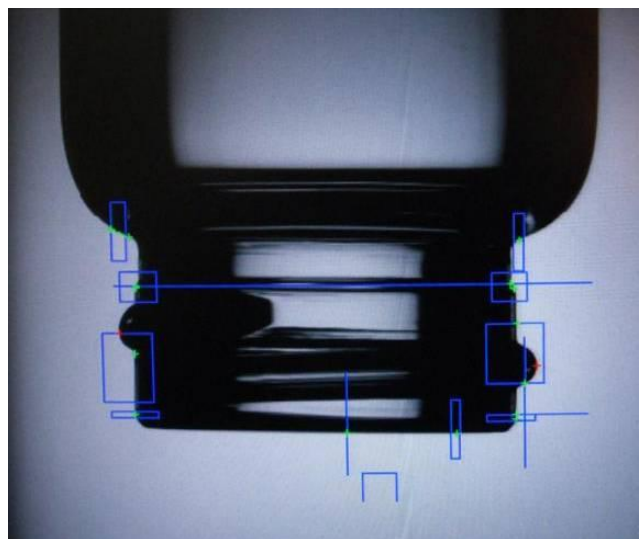
Application

- HPLC instruments
- LCMS instruments
- GC instruments

Vial Closures Guide

Available in three types: crimp, snap and screw cap.

Cap Design	Strength Design	Comments
Crimp	Excellent seal	Requires tools
Snap	Moderate seal	Fast, no tools
Screw	Excellent seal	Universal



Septa Selection Guide

PTFE

- Recommended for single injection application.
- Ideal for use in MS applications
- Excellent solvent resistance and chemical compatibility
- Does not reseal upon punching
- Not for Long-term sample storage

PTFE/Silicone

- Recommended for multiple injection and sample storage
- Excellent resealing
- PTFE chemical resistance until punctured, then will have the chemical compatibility of silicone
- Working temperature range from -40 °C to 200 °C
- Pre-slit PTFE/Silicone
- Prevent vacuum formation in vials
- Eliminates coring from bottom draw-port needles
- Good resealing capabilities
- Recommended for multiple injections
- PTFE chemical resistance until punctured, then will have the chemical compatibility of silicone
- Working temperature range from -40 °C to 200 °C



Vials Selection Guide

- Type 1, 51-expansion borosilicate glass
- type-2, 33- expansion glass
- Deactivated glass (DV)

Treated with gas phase reactive organosilane to produce a hydrophobic glass surface. Can be stored indefinitely.

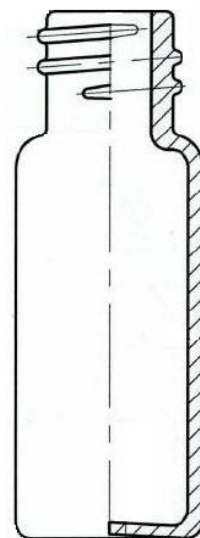
- Headspace Vials

Uniform glass thickness which insures even heat distribution for consistent sampling reliability.

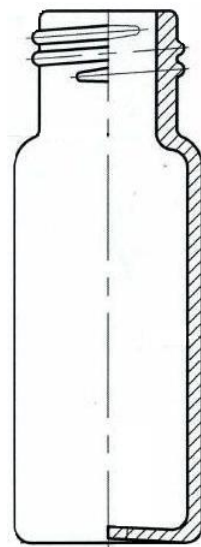


Ordering Information

Screw Top, Standard Opening Vials		
Part No.	Description	Unit
LBSV012C	2ml Clear vial, 8-425 screw top	100/pk
LBSV032C	2ml Clear vial, 8-425 screw top, graduated with writing area	100/pk
LBSV012A	2ml Amber vial, 8-425 screw top	100/pk
LBSV032A	2ml Amber vial, 8-425 screw top, graduated with writing area	100/pk
Screw caps - 8-425, polypropylene plastic for standard screw top vial		
LBSV012	Black screw cap with hole, for 2ml 8-425 screw top vial	100/pk
LBSV032	Blue screw cap with hole, for 2mL 8-425 screw top vial	100/pk
Septa for 8-425 Screw caps		
LBSV02RS	White PTFE/red silicone septa, for 2ml 8-425 screw top vial	10000/pk
LBSV02SS	Red PTFE/white silicone septa, for 2ml 8-425 screw top vial	10000/pk
Screw caps + Septa for standard screw top vial		
LBSV012CRS	White PTFE/red silicone septa + Black screw cap with hole, for 2ml 8-425 screw top vial	100/pk
LBSV012CSS	Red PTFE/white silicone septa + Black screw cap with hole, for 2ml 8-425 screw top vial	100/pk



Screw Top, Wide Opening Vials		
Part No.	Description	Unit
LBSV002C	2ml Clear vial, 9-425 screw top	100/pk
LBSV022C	2ml Clear vial, 9-425 screw top, graduated with writing area	100/pk
LBSV002A	2ml Amber vial, 9-425 screw top	100/pk
LBSV022A	2ml Amber vial, 9-425 screw top, graduated with writing area	100/pk
Screw caps - 9-425, polypropylene plastic for Wide Opening screw top vial		
LBSV002	Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk
Septa for 9-425 Screw caps		
LBSV03RS	White PTFE/red silicone septa, for 2ml 9-425 screw top vial	10000/pk
LBSV03SS	Red PTFE/white silicone septa, for 2ml 9-425 screw top vial	10000/pk
LBSV23SS	Blue PTFE/white silicone septa, Pre-slit, for 2mL 9-425 screw top vial	10000/pk
Screw caps + Septa for Wide Opening screw top vial		
LBSV002CRS	White PTFE/red silicone septa + Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk
LBSV102CSS	Red PTFE/white silicone septa + Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk
LBSV222CSS	Blue PTFE/white silicone septa, Pre-slit + Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk



Crimp Top, Wide Opening Vials

Part No.	Description	Unit
LBSV042C	2ml Clear vial, crimp top	100/pk
LBSV062C	2ml Clear vial, crimp top, graduated with writing area	100/pk
LBSV042A	2ml Amber vial, crimp top	100/pk
LBSV062A	2ml Amber vial, crimp top, graduated with writing area	100/pk

Crimp seal - aluminum cap with large hole, for crimp top vial

LBSV022	Aluminium cap 11 mm for 2ml crimp top vial	100/pk
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Septa for Crimp seal - aluminum cap

LBSV04RS	White PTFE/red silicone septa, for 2ml crimp vial	10000/pk
LBSV04SS	Red PTFE/white silicone septa, for 2ml crimp vial	10000/pk

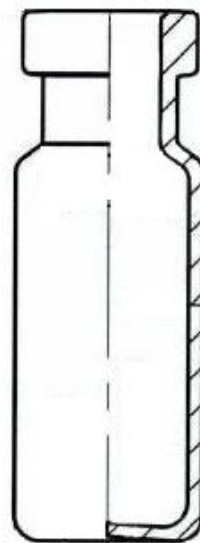
Aluminum cap + Septa for Wide Opening Crimp top vial

LBSV112CRS	White PTFE/red silicone septa+ Aluminium cap, for 2ml crimp top vial	100/pk
LBSV122CRS	Red PTFE/white silicone septa + Aluminium cap, for 2ml crimp top vial	100/pk

Actual DIM : Volume 1.8ml 32x11.7mm, Top ID 1/4"(6.3mm)

Pics are to scale

Engineering Drawings available : to select Customers ONLY

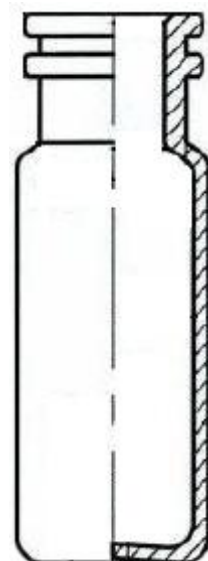


Snap Ring Top, Wide Opening Vials

Part No.	Description	Unit
LBSV052C	2ml Clear vial, snap top	100/pk
LBSV072C	2ml Clear vial, snap top, graduated with writing area	100/pk
LBSV052A	2ml Amber vial, snap top	100/pk
LBSV072A	2ml Amber vial, snap top, graduated with writing area	100/pk

Snap caps- for snap ring top vial with bonded-in septa

LBSV202CSS	Red PTFE/white silicone septa + Blue snap cap, for 2ml 9-425 Snap Ring Top vial	100/pk
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both Crimp & Screw Vials available . . .

with and without Graduations / White Marking Spot

Septa - Disc Type (in-situ pre-moulded) Silicone Rubber/PTFE laminated

- replacable - Silicone -Top, PTFE - Inner layer

- both red on White and White on Red

2ml 12*32mm Vials, flat base, clear and amber - Nominal sizes Only - designed to fit common chromatography Autosamplers

Standard Opening Crimp Top 8-425	1. Narrow neck crimp top vials fit many older GC autosamplers. 2. Compatible with all 11mm crimp seals and 5mm nominal diameter inserts
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Wide Opening Crimp Top 9-425 eg Agilent Autosamplers	1. Easier to fill 2. Used with either 11mm aluminum seals
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Standard Opening Screw Thread 8-425	Standard neck vial—8-425 thread finish, 12x32mm outer profile
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Wide opening Screw Thread 9-425	Wide neck vial is easy to fill
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11mm Snap	1. Wide opening vial is easier to fill and provides a larger target area for the autosampler needle 2. Used with snap caps
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4ml 15*45mm Vials, flat base

Screw Thread, Crimp Top, Snap Top Vials

Headspace Vials

Beveled Edge, Square Rim

Also Available with 10ml, 20ml, and 40ml vials.

More information please visit our website : www.chromtech.net.au

Or mail : Chromalytic Technology Pty Ltd in AUSTRALIA at : info@chromtech.net.au



MS® Syringe Filters

MS® syringe filters are simply quality filters, well packaged, and offered at a fair and competitive price. The Classic range is available in all of the major membranes including Nylon, PTFE, PES, MCE and PVDF which are supplied in 13mm, 25mm and 33mm formats in virgin polypropylene housings.

The emphasis is very much on quality. Membrane materials are supplied by the best names in the industry and the ISO9000 certified manufacturing is carried out to the highest standards, in certified clean room conditions, using the latest manufacturing technology to ensure a high quality, consistent product.

All items are quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure. Designed with a Female Luer-Lok inlet and Male Luer slip outlets. Some Filters are individually wrapped sterile, certified RNase-free, DNase-free, Non-pyrogenic, and DNA-free.



Colour Coded:

MS® syringe filters are colour coded, providing **easy identification of the membrane type and porosity.**

Click on any of the filters below to view the range we stock with that membrane:


White -- PES
0.22µm, 0.45µm
13mm, 25mm, 33mm


Green -- MCE
0.22µm, 0.45µm
13mm, 25mm, 33mm


Purple -- PTFE
0.22µm, 0.45µm
13mm, 25mm, 33mm


Yellow -- Nylon
0.22µm, 0.45µm
13mm, 25mm, 33mm


Black -- PVDF
0.22µm, 0.45µm
13mm, 25mm, 33mm


Blue -- MCE
0.22µm, 0.45µm
13mm, 25mm, 33mm


Orange -- PTFE
0.22µm, 0.45µm
13mm, 25mm, 33mm


Pink -- Nylon
0.22µm, 0.45µm
13mm, 25mm, 33mm


Red -- PVDF
0.22µm, 0.45µm
13mm, 25mm, 33mm



Introduction:

MS[®] Nylon syringe filters offer universal application for analytical procedures. Hydrophilic Nylon is ideal for aqueous (non-acidic) or organic sample prep and HPLC, GC or dissolution sample analysis. With its excellent flow characteristics, very low extractable levels and mechanical stability, Nylon offers the best combination of physical parameters to meet the most stringent analytical needs. The naturally hydrophilic, high protein binding and high dirt loading capacity of Nylon are natural advantages.

Technical Parameter:

Membrane Solutions offer Customized Pore Sizes: **0.1µm, 0.80µm, 1.0µm, 3.0µm, 5.0µm.**

Parameters	13mm		25mm		33mm	
Membrane material/Housing Material	Nylon/PP		Nylon/PP		Nylon/PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Normal Pore Size(µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	100°C		100°C		100°C	
Maximum Operating Pressure (psi)	75		95		110	
Applicable pH value	3-12		3-12		3-12	

Order Information:

MS Items	Products Name/Size	Quantity/pk	
Nylon Syringe Filter, 13mm, Non-sterile			
SFNY013010N	Nonsterile Nylon Syringe Filters, 0.10(µm), 13(mm)	500	
SFNY013022N	Nonsterile Nylon Syringe Filters, 0.22(µm), 13(mm)	500	
SFNY013045N	Nonsterile Nylon Syringe Filters, 0.45(µm), 13(mm)	500	
SFNY013080N	Nonsterile Nylon Syringe Filters, 0.80(µm), 13(mm)	500	
SFNY013100N	Nonsterile Nylon Syringe Filters, 1.00(µm), 13(mm)	500	
SFNY013300N	Nonsterile Nylon Syringe Filters, 3.00(µm), 13(mm)	500	
SFNY013500N	Nonsterile Nylon Syringe Filters, 5.00(µm), 13(mm)	500	
Nylon Syringe Filter, 25mm, Non-sterile			
SFNY025010N	Nonsterile Nylon Syringe Filters, 0.10(µm), 25(mm)	200	
SFNY025022N	Nonsterile Nylon Syringe Filters, 0.22(µm), 25(mm)	200	
SFNY025045N	Nonsterile Nylon Syringe Filters, 0.45(µm), 25(mm)	200	

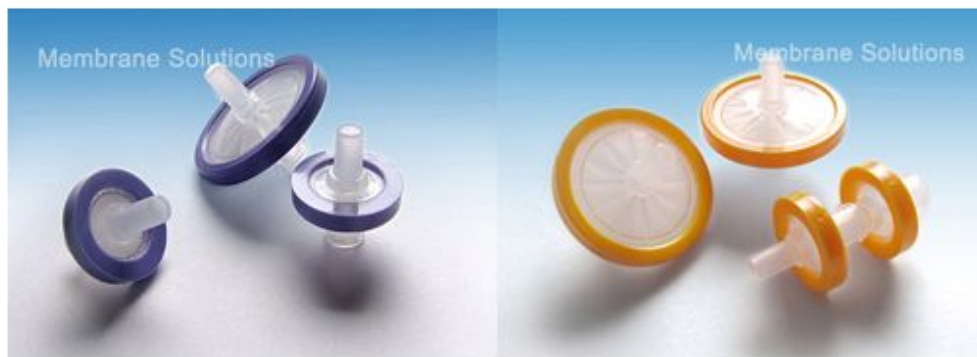
SFNY025080N	Nonsterile Nylon Syringe Filters, 0.80(μm), 25(mm)	200	
SFNY025100N	Nonsterile Nylon Syringe Filters, 1.00(μm), 25(mm)	200	
SFNY025300N	Nonsterile Nylon Syringe Filters, 3.00(μm), 25(mm)	200	
SFNY025500N	Nonsterile Nylon Syringe Filters, 5.00(μm), 25(mm)	200	
Nylon Syringe Filter, 33mm, Non-sterile			
SFNY033022N	Nonsterile Nylon Syringe Filters, 0.22(μm), 33(mm)	200	
SFNY033045N	Nonsterile Nylon Syringe Filters, 0.45(μm), 33(mm)	200	
Nylon Syringe Filter, 13mm, Sterile			
SFNY013010S	Sterile Nylon Syringe Filters, 0.10(μm), 13(mm)	200	
SFNY013022S	Sterile Nylon Syringe Filters, 0.22(μm), 13(mm)	200	
SFNY013045S	Sterile Nylon Syringe Filters, 0.45(μm), 13(mm)	200	
SFNY013080S	Sterile Nylon Syringe Filters, 0.80(μm), 13(mm)	200	
SFNY013100S	Sterile Nylon Syringe Filters, 1.00(μm), 13(mm)	200	
SFNY013300S	Sterile Nylon Syringe Filters, 3.00(μm), 13(mm)	200	
SFNY013500S	Sterile Nylon Syringe Filters, 5.00(μm), 13(mm)	200	
Nylon Syringe Filter, 25mm, Sterile			
SFNY025010S	Sterile Nylon Syringe Filters, 0.10(μm), 25(mm)	200	
SFNY025022S	Sterile Nylon Syringe Filters, 0.22(μm), 25(mm)	200	
SFNY025045S	Sterile Nylon Syringe Filters, 0.45(μm), 25(mm)	200	
SFNY025080S	Sterile Nylon Syringe Filters, 0.80(μm), 25(mm)	200	
SFNY025100S	Sterile Nylon Syringe Filters, 1.00(μm), 25(mm)	200	
SFNY025300S	Sterile Nylon Syringe Filters, 3.00(μm), 25(mm)	200	
SFNY025500S	Sterile Nylon Syringe Filters, 5.00(μm), 25(mm)	200	
Nylon Syringe Filter, 33mm, Sterile			
SFNY033122S	Sterile Nylon Syringe Filters, 0.22(μm), 33(mm)	200	
SFNY033145S	Sterile Nylon Syringe Filters, 0.45(μm), 33(mm)	200	
Nylon Syringe Filter, 13mm, with PP Prefilter, Non-sterile			
SFNY013022NP	Nonsterile Nylon Syringe Filters, 0.22(μm), 13(mm), PP prefilter	100	
SFNY013045NP	Nonsterile Nylon Syringe Filters, 0.45(μm), 13(mm), PP prefilter	100	
Nylon Syringe Filter, 13mm, with PP Prefilter, Sterile			
SFNY013122SP	Sterile Nylon Syringe Filters, 0.22(μm), 13(mm), PP prefilter	100	
SFNY013145SP	Sterile Nylon Syringe Filters, 0.45(μm), 13(mm), PP prefilter	100	
Nylon Syringe Filter, 25mm, with PP Prefilter, Non-sterile			
SFNY025022NP	Nonsterile Nylon Syringe Filters, 0.22(μm), 25(mm), PP prefilter	100	
SFNY025045NP	Nonsterile Nylon Syringe Filters, 0.45(μm), 25(mm), PP prefilter	100	
Nylon Syringe Filter, 25mm, with PP Prefilter, Sterile			
SFNY025122SP	Sterile Nylon Syringe Filters, 0.22(μm), 25(mm), PP prefilter	100	
SFNY025145SP	Sterile Nylon Syringe Filters, 0.45(μm), 25(mm), PP prefilter	100	
Nylon Syringe Filter, 13mm, with Glass Fiber Prefilter, Non-sterile			
SFNY013022NG	Nonsterile Nylon Syringe Filters, 0.22(μm), 13(mm), GF prefilter	100	
SFNY013045NG	Nonsterile Nylon Syringe Filters, 0.45(μm), 13(mm), GF prefilter	100	
Nylon Syringe Filter, 13mm, with Glass Fiber Prefilter, Sterile			
SFNY013122SG	Sterile Nylon Syringe Filters, 0.22(μm), 13(mm), GF prefilter	100	
SFNY013145SG	Sterile Nylon Syringe Filters, 0.45(μm), 13(mm), GF prefilter	100	
Nylon Syringe Filter, 25mm, with Glass Fiber Prefilter, Non-sterile			
SFNY025022NG	Nonsterile Nylon Syringe Filters, 0.22(μm), 25(mm), GF prefilter	100	
SFNY025045NG	Nonsterile Nylon Syringe Filters, 0.45(μm), 25(mm), GF prefilter	100	
Nylon Syringe Filter, 25mm, with Glass Fiber Prefilter, Sterile			
SFNY025122SG	Sterile Nylon Syringe Filters, 0.22(μm), 25(mm), GF prefilter	100	
SFNY025145SG	Sterile Nylon Syringe Filters, 0.45(μm), 25(mm), GF prefilter	100	

Key: **R**= Recommended, **N**= Not Recommended , **T**= Test, **L**= Limited Resistance (Testing before use is recommended)

SOLVENTS		ACIDS	
Chemical	Nylon Filter Media	Chemical	Nylon Filter Media
Acetone	R	Acetic Acid,5%	R
Acetonitrile	R	Acetic Acid,10%	L
Amyl Acetate	R	Acetic Acid,Glacial	N
Aniline	R	Boric Acid	L
Benzene	R	Hydrochloric, 6N	N
Bromoform	R	Hydrochloric, Conc.	N
Butyl Acetate	R	Hydrofluoric, 10%	N
Carbon Tetrachloride	R	Hydrofluoric, 35%	N
Cellosolve	R	Nitric Acid, 6N	N
Chloroform	R	Nitric Acid, Conc.	N
Cyclohexane	R	Sulfuric Acid, 6N	N
Cyclohexanone	R	Sulfuric Acid, Conc.	N
Diethyl Acetamide	R	BASES	
Dimethyl Formamide	R	Chemical	Nylon Filter Media
Dimethyl Sulfoxide(DMSO)	R	Ammonium Hydroxide, 6N	N
Dioxane	R	Potassium Hydroxide, 6N	R
Ethyl Ether	R	Sodium Hydroxide, 6N	N
Ethylene Dichloride	R	MISC.	
Formaldehyde	R	Chemical	Nylon Filter Media
Freon TF	R	Cottonseed Oil	R
Gasoline	R	Hydrogen Peroxide(30%)	R
Hexane	R	Kodak KMER, FTFR	R
Isopropyl Acetate	R	Peanut Oil	T
Kerosene	R	Petroleum Oils	R
Methyl Acetate	R	Sesame oil	R
Methyl Ethyl Ketone(MEK)	R	Shipley(AS-111, 340, 1350)	R
Methyl Isobutyl Ketone	R	Silicone Oils	R
Methylene Chloride	L	Turpentine	R
Nitrobenzene	R	Waycoat 59	R
Pentane	R	ALCOHOLS	
Perchloroethylene	R	Chemical	Nylon Filter Media
Pyridine	R	Amyl Alcohol	R
Tetrahydrofuran	L	Benzyl Alcohol	L
Toluene	R	Butyl Alcohol	R
Trichloroethane	R	Ethyl Alcohol <80%	R
Trichloroethylene	R	Ethyl Alcohol >80%	R
Trithylamine	R	Ethylene Glycol	R
Xylene	R	Glycerine(Glycerol)	R
		Isobutyl Alcohol	R
		Isopropanol	R
		Methanol	L
		Methyl Cellosolve	R
		Propanol	R

Membrane Solutions

MS® PTFE Syringe Filter



Product Description:

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs.

Features and Benefits:

- Broad chemical compatibility
- Strong chemical stability and inertia
- Strong hydrophobicity
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes (0.22µm and 0.45µm) and four different membrane types.
- All items are quality tested for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA-free.

Application:

- Organic solvent with strong chemical causticity filtration
- Strong acid solvent filtration
- Alkali solvent filtration

Technical Specification:

Parameters	13mm		25mm		33mm	
Membrane material	PTFE		PTFE		PTFE	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Pore Size (µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	130°C		130°C		130°C	
Maximum Operating Pressure (psi)	130		130		130	
Applicable pH value	1-14		1-14		1-14	

MS® PES Syringe Filter



Product Description:

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs. PES(Polyethersulfone) – low affinity for proteins and extractable with substantially faster flow rates than PVDF; suitable for pre-filtration and filtration of buffers and culture media.

Features and Benefits:

- High filtration speed
- Lowest protein binding
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes(0.22µm and 0.45µm)
- All items are quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- some Filters are individually wrapped sterile, certified RNase-free, DNase- free,
- Non-pyrogenic, and DNA –free.
- Low exeractables

Application:

- Sterile filtering protein solution
- Tissue culture media filtration
- Tissue culture additive filtration

Technical Specification:

Parameters	13mm		25mm		33mm	
Membrane material	PES		PES		PES	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm ²)	0.65		3.90		4.60	
Pore Size(µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	90°C		90°C		90°C	
Maximum Operating Pressure (psi)	50		95		120	
Applicable pH value	1-14		1-14		1-14	

MS® SteriBio Syringe Filters

----- Ideal for Proteinaceous Samples and Tissue Culture Work



MS® SteriBio syringe filters are available with Polyethersulphone (PES) and Cellulose Acetate (CA) membranes. Each filter is individually packed and sterilized by Gama Radiation. Every box is printed with a Batch Number and Expiry Date for quick and easy QC tracking.

SteriBio Cellulose Acetate and PES syringe filters have particularly low adsorption which ensures minimal loss of proteins and preservatives.

Membrane Solutions offer Syringes (sterile) which are suitable for sterilization filtration together with MS® SteriBio syringe filters.



- All the Syringes are sterilized by Ethylene Oxide,
- Individually packaged.
- No-toxic
- Pyrogen free

MS® SteriBio Syringe Filters

Introduction:

CA (Cellulose Acetate) combine high flow rates and thermal stability with very low absorption characteristics. Especially 0.22um pore size CA Sterile Syringe Filter excellently suited for sterilization aqueous solutions, buffers, sera and media. Low protein binding to minimize sample loss

PES (polyethersulphone)resistant to a wide range of solvents and offers low binding to proteins and nucleic acid. PES is also recommended for ion chromatography. Hydrophilic, low protein binding, low extractables with high throughput (flow) make this unit useful for aqueous, biological or protein based filtration.

Application:

CA Sterile Syringe Filter:

- Sterilize biological fluids, serum or media additives,
- Sample preparations of aqueous solutions,
- Sample preparation of protein-based HPLC solutions,
- High throughput, low binding filter units for non-sterile aqueous filtrations,
- Filtrations of tissue culture media,
- High throughput for sterile or non-sterile clarification of even the most viscous proteinaceous Solutions,
- Filter probe and hybridization solutions to reduce backgrounds,

Note:

- CA Membrane is not compatible with organic solvents.
- CA Membrane chemical campatibility range is pH4-8.

PES Sterile Syringe Filter:

- Sterilize biological fluids, serum or tissue culture media additives
- Sample preparation of aqueous solutions
- High throughput, low binding filter
- Units for sterile aqueous filtrations
- Filter probe and hybridization solutions to reduce backgrounds
- Sample preparation of protein-based HPLC solutions
- High throughputs when sterilizing or clarifying even the most viscous proteinaceous solutions,
- probe solutions;
- protein and enzyme filtrations;
- hybridization buffers and other aqueous solutions.

Technical Parameter:

	CA (Sterile)			PES (Sterile)		
Parameters	13mm	25mm	33mm	13mm	25mm	33mm
Membrane material	CA	CA	CA	PES	PES	PES
Housing material	PP	PES	PP	PP	PES	PP
Filtration area (cm ²)	0.65	3.90	4.60	0.65	3.90	4.60
Pore Size(μm)	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45
Holdup volume (μl)	<10	<30	<55	<10	<30	<55
Sample volume (ml)	<12	<100	<140	<12	<100	<140
Maximum Operating Temperature	110°C	110°C	110°C	90°C	90°C	90°C
Maximum Operating Pressure (psi)	50	95	120	50	95	120
Applicable pH value	4-8	4-8	4-8	1-14	1-14	1-14

Order Information:

PES Sterile Syringe Filter, Gama Sterile, Individually Package		
Item NO.	Discription	package
SFPES013022S	Sterile PES Syring Filters, 0.22(μm), 13(mm)	100
SFPES013045S	Sterile PES Syring Filters, 0.45(μm), 13(mm)	100
SFPES025022S	Sterile PES Syring Filters, 0.22(μm), 25(mm)	100
SFPES025045S	Sterile PES Syring Filters, 0.45(μm), 25(mm)	100
SFPES033022S	Sterile PES Syring Filters, 0.22(μm), 33(mm)	100
SFPES033045S	Sterile PES Syring Filters, 0.45(μm), 33(mm)	100

CA Sterile Syringe Filter, Gama Sterile, Individually Package		
Item NO.	Discription	package
SFCA013022S	Sterile CA Syringe Filters, 0.22(μm), 13(mm)	100
SFCA013045S	Sterile CA Syringe Filters, 0.45(μm), 13(mm)	100
SFCA025022S	Sterile CA Syringe Filters, 0.22(μm), 25(mm)	100
SFCA025045S	Sterile CA Syringe Filters, 0.45(μm), 25(mm)	100
SFCA033022S	Sterile CA Syringe Filters, 0.22(μm), 33(mm)	100
SFCA033045S	Sterile CA Syringe Filters, 0.45(μm), 33(mm)	100

Chemical Compatibility Chart For CA / PES Membrane

Key: R= Recommended, N= Not Recommended , T= Test, L= Limited Resistance (Testing before use is recommended)						
				ACIDS		
Chemical	CA	PES		Chemical	CA	PES
Acetone	N	N		Acetic Acid,5%	R	R
Acetonitrile	N	R		Acetic Acid,10%	N	R
Amyl Acetate	L	L		Acetic Acid,Glacial	N	R
Aniline	N	R		Boric Acid	R	T
Benzene	L	R		Hydrochloric, 6N	L	R
Bromoform	N	T		Hydroflouric, 10%	N	R
Butyl Acetate	L	L		Nitric Acid, 6N	L	N
Carbon Tetrachloride	L	R		Nitric Acid, Conc.	L	N
Cellosolve	R	T		Sulfuric Acid, 6N	L	T
Chloroform	N	N		Sulfuric Acid, Conc.	N	N
Cyclohexane	R	T		BASES		
Cyclohexanone	N	N		Chemical	CA	PES
Diethyl Acetamide	N	T		Ammonium Hydroxide, 6N	N	R
Dimethyl Formamide	N	N		Potassium Hydroxide, 6N	N	T
Dimethyl Sulfoxide(DMSO)	N	N		Sodium Hydroxide, 6N	N	R
Dioxane	N	L		MISC.		
Ethyl Ether	L	R		Chemical	CA	PES
Ethylene Dichloride	L	T		Hydrogen Peroxide(30%)	N	T
Formaldehyde	L	R		Kodak KMER, FTFR	N	T
Freon TF	R	R		Peanut Oil	R	L
Gasoline	R	T		Petroleum Oils	T	L
Hexane	R	T		Sesame oil	R	T
Isopropyl Acetate	N	T		Shipley(AS-111, 340, 1350)	N	T
Kerosene	R	T		Silicone Oils	R	R
Methyl Acetate	N	T		ALCOHOLS		
Methyl Ethyl Ketone(MEK)	N	N		Chemical	CA	PES
Methyl Isobutyl Ketone	N	T		Amyl Alcohol	R	N
Methylene Chloride	N	N		Benzyl Alcohol	L	N
Nitrobenzene	N	N		Butyl Alcohol	R	R
Pentane	R	R		Ethyl Alcohol <80%	L	T
Perchloroethylene	R	N		Ethyl Alcohol >80%	R	R
Pyridine	N	N		Ehtylene Glycol	R	R
Tetrahydrofuran	N	N		Glycerine(Glycerol)	R	R
Toluene	L	N		Isobutyl Alcohol	R	T
Trichloroethane	L	R		Isopropanol	R	R
Trichloroethylene	R	R		Methanol	R	R
Trirhthylamine	R	T		Methyl Cellosolve	L	T
Xylene	R	I		Prnpanol	R	T

MS® PVDF Syringe Filter



Product Description:

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs. PVDF (Polyvinylidene fluoride) – extremely low protein-binding; for filtration of non-aggressive aqueous and mild organic solutions, or where maximizing protein recovery is important.

Features and Benefits:

- Good heat—endurance and chemical stability, strong hydrophobicity
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes (0.22µm and 0.45µm)
- All items are quality tested for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA-free.

Technical Specification:

- Gas filtration
- Vapor filtration
- High-temperature filtration
- Food industry
- Medicine filtration

Technical Specification:

Parameters	13mm		25mm		33mm	
Membrane material	PVDF		PVDF		PVDF	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm²)	0.65		3.90		4.60	
Pore Size(µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	100°C		100°C		100°C	
Maximum Operating Pressure (psi)	50		95		110	
Applicable pH value	1-14		1-14		1-14	



MS[®] G-MP syringe filter



Introduction

MS[®] G-MP syringe filters are designed specially to filter high particulate solutions. With four layers, the first filter is a composite membrane of 10µm glass fiber and 1.0µm PP, the second prefilter is 0.7µm GF/F membrane media, the last one is filtration media as specified. G-MP special membrane materials can eliminate sample contamination and allow you to filter difficult samples with less hand pressure and fast flow rate. They prevent the build up of back pressure typically caused by the blocking of an unprotected membrane.

Feature

Increased volume throughput:

Volume of sample filtered can be three to seven times greater than conventional filters.

Superior performance:

Four layers of filtration media reduce blockage and the need to replace the filter in mid-operation.

Less hand force required:

The unique pre-filter layer allows high particulate samples to be filtered with less hand force, minimizing operator fatigue.



Application

- Hard-to-filter samples
- Dissolution testing
- Content uniformity
- Environmental samples
- Composite assays
- Food analysis
- Biofuel analysis

Technical Specification

Specification	25mm
Filtration Area	4.6cm ²
Maximum Pressure	75psi(5.2bar)
Materials of construction	Housing: Polypropylene Filtration Media: As specified
Connectors	Inlet: Female Luer Lock (FLL) Outlet: Male Luer (ML)
Flow direction	Flow from inlet to outlet (FLL to ML)

Order Information

25mm Non-sterile

Catalog No.	Membrane	Pore size(μm)	Package(pcs/pk)
SFNY025022NM	Nylon	0.22	100
SFNY025045NM	Nylon	0.45	100
SFPVDF025022NM	PVDF	0.22	100
SFPVDF025045NM	PVDF	0.45	100
SFPTFE025022NM	PTFE	0.22	100
SFPTFE025045NM	PTFE	0.45	100
SFPES025022NM	PES	0.22	100
SFPES025045NM	PES	0.45	100
SFPP025022NM	PP	0.22	100
SFPP025045NM	PP	0.45	100
SFCA025022NM	CA	0.22	100
SFCA025045NM	CA	0.45	100

Note: Sterilization is available.

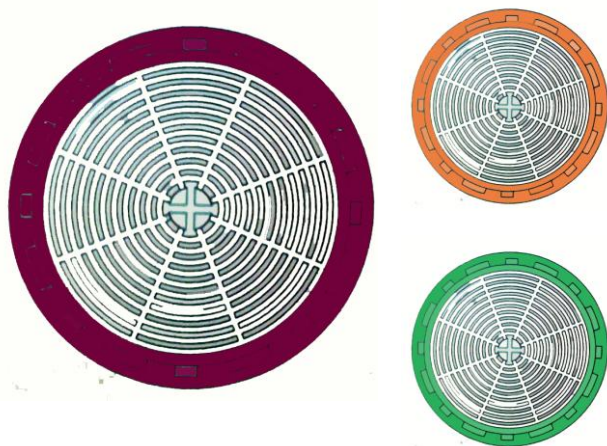
Superpure™ Syringe Filter

5 Improvements, 5 Days Delivery

Same Low Price

New range of HPLC 17mm, 30mm Syringe Filters

Superpure™ 17 mm, 30 mm color-coded syringe filters are designed to speed up and increase sample volume throughput while reducing thumb pressure. All with **HPLC certification**.



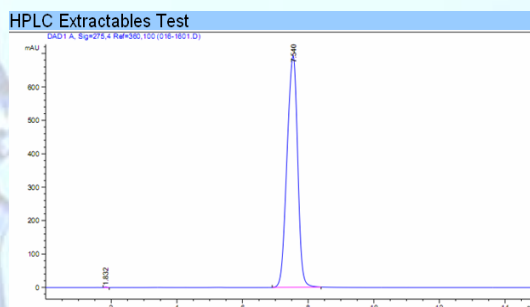
Features and Benifits

- **Color coding:** Easier to tell the filter membrane
- **Larger filtration areas:** (bigger than 33mm) Increased sample throughout
- **Added sample distribution ring:** Improved membrane flows
- **High resolutions print:** Easier to tell the pore size of filter
- **Better membrane media:** Improved membrane flow rates
- **Application Compatibility:** Broad range of filtration media meets diverse application needs
- **Minimum sample hold-up:** Syringe Filters' housings are specifically designed to maximize sample recovery
- **Sterile:** Filters can be purchased pre-sterilized by Gamma radiation and individually packaged

Application

- HPLC sample preparation
- Content uniformity
- Removal of protein precipitates
- Dissolution testing
- Environmental samples

Validated HPLC Performance



Agilent Technologies 1200, Column: C18 UV = 254 nm Mob.phase:MeOH/H₂O:20:80, Temperature: 25°C, Flow rate:0.8ml/min, sample:2mg/ml Bergenin(in Methanol)

Parameters	17mm	30mm
Housing material	Virgin Medical Polypropylene	
Effective Filtration area (cm ²)	1.65	5.39
Pore Size (µm)	0.22, 0.45.....	
Holdup volume (µl)	<25	<100
Sample volume (ml)	<20	<200
Inlet connection	Female luer lock	
Outlet connection	Male luer slip	
Maximum Operating Temperature	50°C	50°C
Maximum Operating Pressure	6 bar	6 bar



How to select your sample preparation device?

➤ Step 1: Choose the suitable membrane filtration medium Characteristics of samples

Solutions	Recommended
Solvent Mixtures	Nylon, MCE
Tissue culture Media, Buffers, Protein Analysis/ Biological Samples	CA, PVDF, PES
High Particulate Loads	With GF or PP pre-filter
Aggressive or Pure Organic Solvents	PTFE, PVDF





➤ Step2: choose the suitable diameter

Volume of samples	
<20ml	<200ml
17mm	30mm



➤ Step 3: Choose the suitable pore size based on the nature of your sample

- Removal of high particulate matter with a glass fiber pre filter is critical before any drug, toxic, or dirty environmental sample is filtered to ensure the highest syringe filter membrane performance.
- Generally, 0.45 µm porosity filters are used to remove particulates from samples and mobile phase solutions. For sterile-filtration, a 0.20 µm porosity filter can be used.

	Order No.	Pore Size(μm)	Membrane	Diameter	Package	Price (US\$/PK)
	SFNY017022N	0.22	Nylon66	17mm,	100/pk	
	SFNY017045N	0.45	Nylon66	17mm,	100/pk	
	SFNY030022N	0.22	Nylon66	30mm,	100/pk	
	SFNY030045N	0.45	Nylon66	30mm,	100/pk	
	SFPES017022N	0.22	PES	17mm,	100/pk	
	SFPES017045N	0.45	PES	17mm,	100/pk	
	SFPES030022N	0.22	PES	30mm,	100/pk	
	SFPES030045N	0.45	PES	30mm,	100/pk	
	SFPTFE017022NB	0.22	PTFE	17mm,	100/pk	
	SFPTFE017045NB	0.45	PTFE	17mm,	100/pk	
	SFPTFE030022NB	0.22	PTFE	30mm,	100/pk	
	SFPTFE030045NB	0.45	PTFE	30mm,	100/pk	
	SFPVDF017022N	0.22	PVDF	17mm,	100/pk	
	SFPVDF017045N	0.45	PVDF	17mm,	100/pk	
	SFPVDF030022N	0.22	PVDF	30mm,	100/pk	
	SFPVDF030045N	0.45	PVDF	30mm,	100/pk	

Note:

1. Sterile Syringe filter of all material are available.
2. Free samples are welcomed. We've standard sample pack for customers



Membrane Solutions LLC

Superpure™

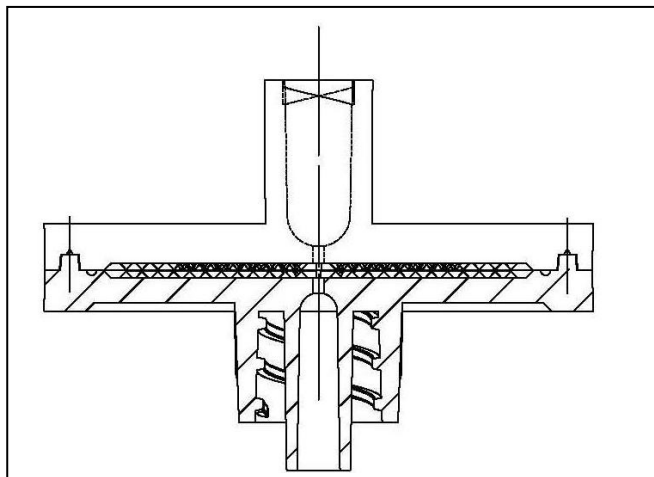
5 Improvements, SAME LOW PRICE, 5 Days Delivery

New range of HPLC 17mm, 30mm Syringe Filters

New Filter Design Drawing

The Superpure 17 mm and Superpure 30 mm syringe filters manufactured by Membrane Solutions are designed to speed up and increase sample volume throughput while reducing thumb pressure. The 17 mm and 30 mm sizes, replacing the 13 mm and 25 mm sizes, offer far more value to researchers due to several new features.

They will be available with one of the following membranes in 0.22 µm or 0.45 µm pore size: Nylon66, MCE, PTFE, PES and PVDF. These filters should mainly be used for small sample volumes where the dead volume should be kept to a minimum.



Improved Performance Benefits:

Feature	Benefit
Color coding	Easier to tell the filter membrane
Larger filtration areas (bigger than 33mm)	Increased sample throughout
Female lure lock	Can be used as the venting filter
High resolutions print	Easier to tell the pore size of filter
Better membrane media	Improved membrane flow rates

This table offers general guidelines for membrane characteristics and compatible applications.

Membrane Type	Membrane Characteristics	Applications
Nylon66	Most frequently selected membrane; broad compatibility with aqueous and organic samples; naturally hydrophilic membrane; extremely low in extractables; excellent flow rate with most sample matrices; not compatible with strong acids or bases	General laboratory filtration; filtration for most HPLC samples. NOTE: Nylon binds protein, do not use when high protein recovery is desired
Polyethersulfone	High flow rates with good throughput volume; low protein binding; compatible with high temperature liquids; mechanically strong membrane low in inorganic extractable ions	PES is certified for Ion Chromatography; Tissue Culture filtration; filtration of proteins and nucleic acids
PTFE	Hydrophobic membrane is resistant to nearly all solvents, acids, and bases; membrane is mechanically strong and will withstand exposure to high temperature liquids; low in extractables; PTFE blocks water vapor; can be used to filter aqueous solutions	Filtration of aggressive organic, highly basic or hot solutions, ideal for transducer protectors
Hydrophilic PTFE	Hydrophilic PTFE is especially useful in HPLC sample preparation and is highly resistant to most solvents. And it's generally used for aqueous-based biological samples.	Filtration of aggressive organic, highly basic or hot solutions, ideal for aqueous filtration
MCE	Ideal for aqueous-based samples; high protein recovery from filtrate; higher tensile strength compared to CA	Aqueous sample preparation
PVDF	High protein binding, Hydrophobic membrane is resistant to nearly most solvents acid and bases.	Filtration of aggressive organic

Vacuum Pump

Products Picture



VPJ0201



VPJ0332



VPJ0333



VPJ0501



VPJ0502



VPJ1001

Application Examples

- Vacuum filtration
- Vacuum distillation
- Vacuum drying
- On rotary evaporators
- To extract and transfer gases

Attachments

1. Vacuum gauge (-0.1Mpa) 1 piece
2. Connecting rubber pipe ($\Phi 7\text{mm} \times \Phi 12\text{mm} \times 800\text{mm}$) 1 piece

Features

- It can be in service under the condition of no working medium (no oil) and will not produce any pollution. Moreover, there is filtering material in the air exchange bin to guarantee the air clean.
- New technologies and materials are used in production. It is easy to move and can work smoothly, which can guarantee the ideal vacuum and high rate of air flowing.
- It adopts the operation containing no friction, producing no calories and having no friction exhausts. The diaphragm is made of Nitrile Rubber, which resists the corrosion and has long operating life.
- The self-cooling air draft system is designed in the body. This system can keep the machine continuously running for 24 hours.
- The design can be regulated by pressure to meet the requirements of vacuum or controllable steady air stream within certain range.
- The axletrees are classical, which are imported abroad. They have the features of steady running, low noise and high operating efficiency

Technique Data

1.VPJ0201

(Technique Parameter)



Speed of Evacuation(l/m)	12	Working temperature of pump body	<55
Ultimate Pressure	300mbar	Noise Level(DB)	<50
Inlet(mm)	φ6	Overall Size L x W x H (mm)	195×98×156
Power of electrical engine(W)	Single phase.75	Weight(Kg)	4
Temperature of working environment(°C)	7—40	Pump Head	Nylon

2.VPJ0332

(Technique Parameter)



Pumping speed:(L/Min)	20	Temp of the body(°C)	<55
Ultimate Pressure	<0.075Mpa/250mbar	Noise Level(DB)	<50
Inlet(mm)	φ6 (Silencer)	Dimensions (L x B x H) (mm)	235×140×210
Power (w)	200	Weight(Kg)	7.5
Air Changing Bin	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	1
Material of Diaphragm and valve	HNBR	Remark	Negative pressure

3.VPJ0333

(Technique Parameter)



Pumping speed:(L/Min)	20	Temp of the body(°C)	<55
Ultimate Pressure	<0.095Mpa/50mbar	Noise Level (DB)	<50
Inlet(mm)	φ6(Silencer)	Dimensions (LxBxH) (mm)	282×130×210
Power(W)	250	Weight(Kg)	10
gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	2
Material of Diaphragm and valve	HNBR	Remark	Negative pressure

4. VPJ0501

(Technique Parameter)



Pumping speed:(L/Min)	30	Temp of the body(°C)	<55
Ultimate Pressure	250mbar	Noise Level(DB)	<50
Inlet(mm)/Outlet (mm)	φ6/φ6	Dimensions(L x B x H) (mm)	215×165×270
Power (w)	200	Weight(Kg)	8
gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	1
Material of Diaphragm and valve	HNBR	Remark	Dual purpose of positive pressure and negative pressure

5.VPJ0502

(Technique Parameter)



Pumping speed:(L/Min)	30	Temp of the body(°C)	<55
Ultimate Pressure	<0.095Mpa, 50mbar	Noise Level(DB)	<50
Inlet(mm)/Outlet (mm)	φ6/Silencer	Dimensions(L x B x H) (mm)	282×130×210
Power (w)	250	Weight(Kg)	10
Gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	2
Material of Diaphragm and valve	HNBR	Remark	Negative pressure

6.VPJ1001

(Technique Parameter)



Pumping speed:(L/Min)	60	Temp of the body(°C)	<55
Positive pressure	>30psi	Noise Level (DB)	<50
Ultimate Pressure	250mbar		
Inlet(mm)/Outlet (mm)	φ6/φ8	Dimensions(L x B x H)(mm)	282×155×210
Power (w)	250	Weight(Kg)	9
gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	2
Material of Diaphragm and valve	HNBR	Remark	Dual purpose of positive pressure and negative pressure

Attachments

1. Vacuum gauge (-0.1Mpa) 1 piece
2. Connecting rubber pipe (Φ 7mm* Φ 12mm*800mm) 1 piece

Order Information

Item Number	Unit Price(US\$/set)	
	Qty<10pcs	Qty>10pcs
VPJ0201	186.71	148.57
VPJ0332	314.29	251.43
VPJ0333	400.05	320.26
VPJ0501	389.79	310.28
VPJ0502	400.05	320.26
VPJ1001	400.05	320.26

MS[®] Reusable Syringe Filter Holders



Introduction

The Re-usable Syringe Filter holders are unaffected by chemicals and contains no trace elements which could be released into the liquid being filtered. It is therefore extremely well suited for particle removal for sample preparation.

Feature

- Compatibility Chemical resistance as for polycarbonate and silicone
- Dead volume Less than 0.3 ml after bubble point
- Filter Requires 13, 25, 50 mm diameter membrane filter
- 25 mm diameter Filtration area 3 cm²
- Flow rates• Typical values for water at 1 bar (100 kPa), 70 ml/min with 0.2µm, 110 ml/min with 0.45 µm pore size filters
- Materials• polypropylene top and bottom part. Silicone gasket (20.5 x 26.5mm, replacement for a pack of 10)
- Pressure limit• Max. operating pressure, 7 bar (700 kPa)
- Sterilisation By autoclaving (121°C)

Application

- Gas particulate and bacteria filtration and then inspect them
- Oil particulate and bacteria filtration and then inspect them
- Alcohol particulate and bacteria filtration and then inspect them
- Other solvent particulate and bacteria filtration and then inspect them

Order Information

[PTFE Syringe Filter](#)

[PES Syringe Filter](#)

[MCE Syringe Filter](#)

[PVDF Syringe Filter](#)

[CA Syringe Filter](#)

[PP Syringe Filter](#)

[Glass Fiber Syringe Filter](#)

[Reusable Syringe Filter Holders](#)

[Syringe Filter with Prefilter](#)

[50mm Syringe Filter](#)

[Cartridge Filter](#)

[Filter Bag](#)

- Compatibility Chemical resistance as for polycarbonate and silicone
- Dead volume Less than 0.3 ml after bubble point
- Filter Requires 13, 25, 50 mm diameter membrane filter
- 25 mm diameter Filtration area 3 cm²
- Flow rates• Typical values for water at 1 bar (100 kPa), 70 ml/min with 0.2µm, 110 ml/min with 0.45 µm pore size filters
- Materials• polypropylene top and bottom part. Silicone gasket (20.5 x 26.5mm, replacement for a pack of 10)
- Pressure limit• Max. operating pressure, 7 bar (700 kPa)
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Application

- Gas particulate and bacteria filtration and then inspect them
- Oil particulate and bacteria filtration and then inspect them
- Alcohol particulate and bacteria filtration and then inspect them
- Other solvent particulate and bacteria filtration and then inspect them

Order Information

Item#	Description	Pcs per box		
SFRPP13	Reusable Syringe Filter, Polypropylene Housing,Diameter:13 (mm)	10		
SFRPP25	Reusable Syringe Filter, Polypropylene Housing,Diameter:25 (mm)	10		
SFRPP35	Reusable Syringe Filter, Polypropylene Housing,Diameter:35 (mm)	10		
SFRPP50	Reusable Syringe Filter, Polypropylene Housing,Diameter:50 (mm)	10		
SFRSS13	Reusable Syringe Filter, Stainless Steel Housing,Diameter:13 (mm)	10		

Syringeless Filter Devices



Introduction

Syringeless filters are preassembled filtration devices specially used in HPLC for the purification and analysis of samples. It is a single disposable unit that contains the function of common sample bottles (including the lid and cushions), disposable needles and syringe filters.

MS @syringeless filter adopt standard size, can cooperate with HPLC instrument perfectly. Two membrane aperture are available to meet all of your filtration needs: 0.22µm and 0.45µm, all materials such as PVDF, Nylon, PTFE, PES, PP are available. Syringeless filters are specially designed for the filtration of small doses of sample, especially suitable for the light sensitive and air sensitive compounds analysis.

How it works

Each unit includes two parts: a chamber and plunger. A filtration membrane on the end of the plunger and pre-attached cap/septum on the other. When using, sample is injected into the lower chamber, then press the plunger manually, positive pressure forces the filtrate up into the reservoir of the plunger.

Application

- HPLC sample preparation
- Hard to filter sample preparation
- Rapid filtration samples
- Temporary test sample preparation
- Soluble detection
- Protein deposition
- Dissolution test
- Suitable for any mixture that needs to avoid light

Features

- Can be pressed manually or by pressing machine
- The whole sample processing saves 1/3 time
- Suitable for automatic sampler or manual injection
- The membrane material diversification
- Protect samples against UV damage
- Amber tube protects light sensitive samples against photochemical degradation
- Translucent amber tube easy for observation
- Suitable for high throughput automation

Ordering Information :



Choosing guide

Membrane	Typical application	Item No	Description	Pack
Nylon	water/organic phase samples filtration	SLFT045PTFESC	Syringeless Filter Devices, translucent	100
PTFE	chemical corrosive liquid filtration		housing with standard cap, PTFE, 0.45µm	
PVDF, CA	lower nonspecific protein medium analysis			
PES	the sample which needs low protein filtration			
PP	conventional filter and dissolve the matrix filtration			

Technical Specifications

Dimensions	Equivalent in size to 12 x 32 mm vials			
Color	Translucent or amber/clear with blue cap			
Filtering capacity	0.4ml			
Materials of construction	Housing and cap: Polypropylene □ □ Filter media: Varies, as specified □ □ Septa: PTFE coated silicone rubber			
Maximum operating temperature	120°F; 50°C	Chamber hold-up volume after compression	50 µL	