Van Borselen
FILTERS

Membrane Disc Filters & Disc Holders

Datasheet

Membrane Disc Filters

Van Borselen Filters membrane discs are designed for reliable filtration in laboratory and analytical applications. They are used to remove particles and microorganisms from aqueous and organic liquids and are suitable for a wide range of membrane materials, supporting accurate sample preparation and process control.

Selection Guide

Aqueous	PES	High throughput, low protein adsorption
	MCE	Widely used in water quality analysis and detection
Organic	Nylon	Compatible with aqueous and organic solutions; not alkali resistant
	Hydrophilic PTFE	Strong acid and alkali resistance
	Hydrophilic PVDF	Low protein binding, suitable for filtration of biological sample
Prefiltration	PP	High dirt holding capacity, wide chemical compatibility
Air/ Gas	Hydrophobic PTFE	Widely used in air/ gas filtration and venting

Aqueous Solutions

Hydrophilic PES
Membrane Filter

Polypropylene (PP) membrane filters offer excellent resistance to organic solvents, high dirt-holding capacity, and fast flow rates. They are well suited for filtering highly contaminated or high-viscosity solutions and can withstand temperatures up to 80 °C.

Ordering Information

Part No.	Material	Diameter	Micron
LLDCHLPES13-001	Hydrophilic PES	13	0.1 µm
LDCHLPES13-004	Hydrophilic PES	13	0.45 µm
LDCHLPES13-006	Hydrophilic PES	13	0.65 µm
LDCHLPES13-002	Hydrophilic PES	13	0.2 µm
LDCHLPES25-001	Hydrophilic PES	25	0.1 µm
LDCHLPES25-004	Hydrophilic PES	25	0.45 µm
LDCHLPES25-006	Hydrophilic PES	25	0.65 µm
LDCHLPES25-002	Hydrophilic PES	25	0.2 µm
LDCHLPES47-001	Hydrophilic PES	47	0.1 µm
LDCHLPES47-002	Hydrophilic PES	47	0.2 µm
LDCHLPES47-004	Hydrophilic PES	47	0.45 µm
LDCHLPES47-006	Hydrophilic PES	47	0.65 µm
LDCHLPES60-001	Hydrophilic PES	60	0.1 µm
LDCHLPES60-002	Hydrophilic PES	60	0.2 µm
LDCHLPES60-004	Hydrophilic PES	60	0.45 µm
LDCHLPES60-006	Hydrophilic PES	60	0.65 µm
LDCHLPES90-001	Hydrophilic PES	90	0.1 µm
LDCHLPES90-002	Hydrophilic PES	90	0.2 µm
LDCHLPES90-004	Hydrophilic PES	90	0.45 µm
LDCHLPES90-006	Hydrophilic PES	90	0.65 µm
LDCHLPES100-001	Hydrophilic PES	100	0.1 µm
LDCHLPES100-002	Hydrophilic PES	100	0.2 µm
LDCHLPES100-004	Hydrophilic PES	100	0.45 µm
LDCHLPES100-006	Hydrophilic PES	100	0.65 µm
LDCHLPES100-012	Hydrophilic PES	100	1.2 µm

Aqueous Solutions

Hydrophilic PES
Membrane Filter

Polypropylene (PP) membrane filters offer excellent resistance to organic solvents, high dirt-holding capacity, and fast flow rates. They are well suited for filtering highly contaminated or high-viscosity solutions and can withstand temperatures up to 80 °C.

Ordering Information

Part No.	Material	Diameter	Micron
LLDCHLPES142-001	HHydrophilic PES	142	0.1 µm
LDCHLPES142-002	Hydrophilic PES	142	0.2 µm
LDCHLPES142-004	Hydrophilic PES	142	0.45 µm
LDCHLPES142-006	Hydrophilic PES	142	0.65 µm
LDCHLPES142-008	Hydrophilic PES	142	0.8 µm
LDCHLPES142-012	Hydrophilic PES	142	1.2 µm
LDCHLPES150-001	Hydrophilic PES	150	0.1 µm
LDCHLPES150-002	Hydrophilic PES	150	0.2 µm
LDCHLPES150-004	Hydrophilic PES	150	0.45 µm
LDCHLPES150-006	Hydrophilic PES	150	0.65 µm
LDCHLPES150-008	Hydrophilic PES	150	0.8 µm
LDCHLPES150-012	Hydrophilic PES	150	1.2 µm
LDCHLPES150-030	Hydrophilic PES	150	3.0 µm
LDCHLPES200-001	Hydrophilic PES	200	0.1 µm
LDCHLPES200-002	Hydrophilic PES	200	0.2 µm
LDCHLPES200-004	Hydrophilic PES	200	0.45 µm
LDCHLPES200-006	Hydrophilic PES	200	0.65 µm
LDCHLPES293-001	Hydrophilic PES	293	0.1 µm
LDCHLPES293-002	Hydrophilic PES	293	0.2 µm
LDCHLPES293-004	Hydrophilic PES	293	0.45 µm
LDCHLPES293-006	Hydrophilic PES	293	0.65 µm
LDCHLPES293-012	Hydrophilic PES	293	1.2 µm
LDCHLPES293-030	Hydrophilic PES	293	3.0 µm

Hydrophilic MCE
Membrane filter

Aqueous Solutions

Mixed Cellulose Ester (MCE) membrane filters are composed of cellulose nitrate and cellulose acetate and are widely used in laboratory analysis and research applications. They offer chemical compatibility within a pH range of 4 to 8.

Ordering Information

Part No.	Material	Diameter	Micron
LDCHLMCE25-002	Hydrophilic Mix. Cell. Ester	25	0.2 µm
LDCHLMCE25-004	Hydrophilic Mix. Cell. Ester	25	0.45 µm
LDCHLMCE47-002	Hydrophilic Mix. Cell. Ester	47	0.2 µm
LDCHLMCE47-004	Hydrophilic Mix. Cell. Ester	47	0.45 µm
LDCHLMCE60-002	Hydrophilic Mix. Cell. Ester	60	0.2 µm
LDCHLMCE60-004	Hydrophilic Mix. Cell. Ester	60	0.45 µm
LDCHLMCE90-002	Hydrophilic Mix. Cell. Ester	90	0.2 µm
LDCHLMCE90-004	Hydrophilic Mix. Cell. Ester	90	0.45 µm
LDCHLMCE100-002	Hydrophilic Mix. Cell. Ester	100	0.2 µm
LDCHLMCE100-004	Hydrophilic Mix. Cell. Ester	100	0.45 µm
LDCHLMCE150-002	Hydrophilic Mix. Cell. Ester	150	0.2 µm
LDCHLMCE150-004	Hydrophilic Mix. Cell. Ester	150	0.45 µm

Nylon
Membrane Filter

Organic Solutions

Nylon membrane filters are naturally hydrophilic, allowing easy wetting with water, and offer high mechanical strength. They provide broad chemical compatibility from pH 3 to 14 and are suitable for aqueous solutions and most organic solvents, including alkaline solutions, alcohols, and DMSO.

Ordering Information

Part No.	Material	Diameter	Micron
LDCHLNYL13-002	Nylon	13	0.2 µm
LDCHLNYL13-004	Nylon	13	0.45 µm
LDCHLNYL25-002	Nylon	25	0.2 µm
LDCHLNYL25-004	Nylon	25	0.45 µm
LDCHLNYL47-002	Nylon	47	0.2 µm
LDCHLNYL47-004	Nylon	47	0.45 µm
LDCHLNYL47-008	Nylon	47	0.8 µm
LDCHLNYL47-010	Nylon	47	1.0 µm
LDCHLNYL47-030	Nylon	47	3.0 µm
LDCHLNYL47-050	Nylon	47	5.0 µm
LDCHLNYL60-002	Nylon	60	0.2 µm
LDCHLNYL60-004	Nylon	60	0.45 µm
LDCHLNYL90-002	Nylon	90	0.2 µm
LDCHLNYL90-004	Nylon	90	0.45 µm
LDCHLNYL100-002	Nylon	100	0.2 µm
LDCHLNYL100-004	Nylon	100	0.45 µm
LDCHLNYL100-008	Nylon	100	0.8 µm
LDCHLNYL142-002	Nylon	142	0.2 µm
LDCHLNYL142-004	Nylon	142	0.45 µm
LDCHLNYL150-002	Nylon	150	0.2 µm
LDCHLNYL150-004	Nylon	150	0.45 µm
LDCHLNYL150-010	Nylon	150	1.0 µm
LDCHLNYL200-002	Nylon	200	0.2 µm
LDCHLNYL200-004	Nylon	200	0.45 µm
LDCHLNYL293-002	Nylon	293	0.2 µm
LDCHLNYL293-004	Nylon	293	0.45 µm

Hydrophilic PTFE
Membrane filter

Organic Solutions

Hydrophilic PTFE membrane filters provide the same broad chemical resistance as hydrophobic PTFE while allowing direct filtration of aqueous solutions without pre-wetting. The modified hydrophilic surface eliminates the need for ethanol or isopropanol conditioning.

Ordering Information

Part No.	Material	Diameter	Micron
LDCHLPTF13-002	Hydrophilic PTFE	13	0.2 µm
LDCHLPTF13-004	Hydrophilic PTFE	13	0.45 µm
LDCHLPTF25-002	Hydrophilic PTFE	25	0.2 µm
LDCHLPTF25-004	Hydrophilic PTFE	25	0.45 µm
LDCHLPTF47-001	Hydrophilic PTFE	47	0.1 µm
LDCHLPTF47-002	Hydrophilic PTFE	47	0.2 µm
LDCHLPTF47-004	Hydrophilic PTFE	47	0.45 µm
LDCHLPTF60-002	Hydrophilic PTFE	60	0.2 µm
LDCHLPTF60-004	Hydrophilic PTFE	60	0.45 µm
LDCHLPTF90-002	Hydrophilic PTFE	90	0.2 µm
LDCHLPTF90-004	Hydrophilic PTFE	90	0.45 µm
LDCHLPTF100-002	Hydrophilic PTFE	100	0.2 µm
LDCHLPTF100-004	Hydrophilic PTFE	100	0.45 µm
LDCHLPTF150-001	Hydrophilic PTFE	150	0.1 µm
LDCHLPTF150-002	Hydrophilic PTFE	150	0.2 µm
LDCHLPTF150-004	Hydrophilic PTFE	150	0.45 µm

PVDF
Membrane Filter

Organic Solutions

Hydrophilic PVDF membrane filters offer good chemical compatibility within a pH range of 1 to 8 but are not suitable for solvents such as acetone, DMSO, THF, DMF, dimethyl carbonate, or chloroform. Due to their low protein binding, PVDF membranes are widely used for the filtration of protein solutions and biological products.

Ordering Information

Part No.	Material	Diameter	Micron
LDCHLPVD13-002	Hydrophilic PVDF	13	0.2 µm
LDCHLPVD13-004	Hydrophilic PVDF	13	0.45 µm
LDCHLPVD25-002	Hydrophilic PVDF	25	0.2 µm
LDCHLPVD25-004	Hydrophilic PVDF	25	0.45 µm
LDCHLPVD47-001	Hydrophilic PVDF	47	0.1 µm
LDCHLPVD47-002	Hydrophilic PVDF	47	0.2 µm
LDCHLPVD47-004	Hydrophilic PVDF	47	0.45 µm
LDCHLPVD60-002	Hydrophilic PVDF	60	0.2 µm
LDCHLPVD60-004	Hydrophilic PVDF	60	0.45 µm
LDCHLPVD90-002	Hydrophilic PVDF	90	0.2 µm
LDCHLPVD90-004	Hydrophilic PVDF	90	0.45 µm
LDCHLPVD150-002	Hydrophilic PVDF	150	0.2 µm
LDCHLPVD150-004	Hydrophilic PVDF	150	0.45 µm
LDCHLPVD293-002	Hydrophilic PVDF	293	0.2 µm
LDCHLPVD293-004	Hydrophilic PVDF	293	0.45 µm

Hydrophobic PP
Membrane Filter

Prefiltration

Polypropylene (PP) membrane filters from Van Borselen Filters are ideally suited for demanding filtration applications. The polypropylene membrane offers excellent chemical resistance, a high dirt holding capacity, and a high filtration flow rate. This makes these filters particularly suitable for prefiltration of liquids with higher levels of contamination or increased viscosity.

Ordering Information

Part No.	Material	Diameter	Micron
LDCHBPPR47-001	Hydrophobic PP	47	0.1 µm
LDCHBPPR47-002	Hydrophobic PP	47	0.2 µm
LDCHBPPR47-004	Hydrophobic PP	47	0.45 µm
LDCHBPPR47-010	Hydrophobic PP	47	1.0 µm
LDCHBPPR47-030	Hydrophobic PP	47	3.0 µm
LDCHBPPR47-050	Hydrophobic PP	47	5.0 µm
LDCHBPPR47-100	Hydrophobic PP	47	10.0 µm
LDCHBPPR47-150	Hydrophobic PP	47	15.0 µm
LDCHBPPR47-200	Hydrophobic PP	47	20.0 µm
LDCHBPPR60-002	Hydrophobic PP	60	0.2 µm
LDCHBPPR60-004	Hydrophobic PP	60	0.45 µm
LDCHBPPR90-002	Hydrophobic PP	90	0.2 µm
LDCHBPPR90-004	Hydrophobic PP	90	0.45 µm
LDCHBPPR150-004	Hydrophobic PP	150	0.45 µm
LDCHBPPR150-010	Hydrophobic PP	150	1.0 µm
LDCHBPPR150-030	Hydrophobic PP	150	3.0 µm
LDCHBPPR200-010	Hydrophobic PP	200	1.0 µm
LDCHBPPR200-050	Hydrophobic PP	200	5.0 µm
LDCHBPPR200-100	Hydrophobic PP	200	10.0 µm

Hydrophobic PTFE
Membrane Filter

Air/ Gas

Hydrophobic PTFE membrane filters offer exceptional chemical resistance across a wide pH range from 1 to 14 and are compatible with virtually all organic solvents. Due to their hydrophobic nature, they are ideal for gas and air filtration and can withstand temperatures up to 200 °C.

Ordering Information

Part No.	Material	Diameter	Micron
LDCHBPTF13-002	Hydrophobic PTFE	13	0.1 µm
LDCHBPTF13-004	Hydrophobic PTFE	13	0.2 µm
LDCHBPTF25-002	Hydrophobic PTFE	25	0.1 µm
LDCHBPTF25-004	Hydrophobic PTFE	25	0.2 µm
LDCHBPTF25-004	Hydrophobic PTFE	25	1.0 µm
LDCHBPTF47-001	Hydrophobic PTFE	47	0.1 µm
LDCHBPTF47-002	Hydrophobic PTFE	47	0.2 µm
LDCHBPTF47-004	Hydrophobic PTFE	47	0.45 µm
LDCHBPTF47-010	Hydrophobic PTFE	47	1.0 µm
LDCHBPTF47-030	Hydrophobic PTFE	47	3.0 µm
LDCHBPTF47-050	Hydrophobic PTFE	47	5.0 µm
LDCHBPTF60-002	Hydrophobic PTFE	60	0.2 µm
LDCHBPTF60-004	Hydrophobic PTFE	60	0.45 µm
LDCHBPTF60-010	Hydrophobic PTFE	60	1.0 µm
LDCHBPTF60-050	Hydrophobic PTFE	60	5.0 µm
LDCHBPTF90-002	Hydrophobic PTFE	90	0.2 µm
LDCHBPTF90-004	Hydrophobic PTFE	90	0.45 µm
LDCHBPTF90-050	Hydrophobic PTFE	90	5.0 µm
LDCHBPTF100-002	Hydrophobic PTFE	100	0.2 µm
LDCHBPTF100-004	Hydrophobic PTFE	100	0.45 µm
LDCHBPTF100-010	Hydrophobic PTFE	100	1.0 µm
LDCHBPTF142-002	Hydrophobic PTFE	142	0.2 µm
LDCHBPTF142-004	Hydrophobic PTFE	142	0.45 µm
LDCHBPTF150-002	Hydrophobic PTFE	150	0.2 µm
LDCHBPTF150-004	Hydrophobic PTFE	150	0.45 µm
LDCHBPTF150-010	Hydrophobic PTFE	150	1.0 µm
LDCHBPTF150-030	Hydrophobic PTFE	150	3.0 µm
LDCHBPTF293-002	Hydrophobic PTFE	293	0.2 µm
LDCHBPTF293-004	Hydrophobic PTFE	293	0.45 µm

Common applications per material type

Material	Features	Apllications	PH Range
PES	High throughput and low protein adsorption.	Ideal for processing water-based solutions, compatible with mild organic solvents, and cell culture applications.	3-14
Hydrophilic MCE	Provides high volumetric flow and elevated throughput performance. Characterized by a high protein adsorption capacity. Exhibits excellent biocompatibility for biological and pharmaceutical applications.	Applied for clarification of aqueous streams and routine laboratory filtration tasks. Compatible with water-based fluids, hydrocarbons, and a broad range of organic solvent systems.	3-10
Hydrophobic PTFE	Exhibits exceptional chemical resistance across a broad range of media. Aqueous samples can be processed following appropriate pre-wetting (e.g. alcohol or isopropanol). Suitable for filtration of elevated-temperature liquids.	Commonly used for venting and gas filtration and to prevent moisture ingress through air vents.	1-14

Material	Features	Apllications	PH Range
Nylon	Minimal release of extractables. Chemically compatible with aqueous and organic media.	Optimized for use with neutral-pH, water-based solutions and solvent mixtures. Widely applied for sample clarification and particulate removal ahead of HPLC.	5-12
Hydrophilic PTFE	Provides maximum chemical resistance, including excellent tolerance to strong acids and alkalis. Ready for use without pre-wetting.	Suitable for filtration of both aqueous and organic media Used for sample preparation prior to UHPLC, HPLC, and LC-MS analysis.	1-14
Hydrophilic PVDF	Offers lowest protein binding of all types.	Suitable for protein-containing solutions and mild organic media.	2-10
Hydrophobic PP	Delivers high retention efficiency across the specified particle size range. Supports a high contaminant loading capacity.	Suitable for pre-treatment applications, including clarification and removal of fine particulates.	1-14

Disc Holders

Polypropylene Disc Holder for Membrane Discs

VBF. Code	Diameter (mm)	Material	Inlet	Outlet	Gasket
LDHCPP47025 NPTSP	47	Polypropylene	1/4" NPT	1/4" NPT threaded male	Silicone

Maximum operating pressure	5 bar @ 25 degrees Celsius
Maximum operating temperature	50 degrees Celsius
Effective Filtration Area	13.8 cm2

Stainless Steel 304 / 316L Disc Holder for Membrane Discs

Diameter (mm)	Material	Inlet/Outlet	VBF Code
47	SS 304	1-1/2” TriClamp	LDHCSS471.5TC*P
90	**SS 316L**	1-1/2” TriClamp	LDHCSS901.5TC*P
142	SS 304	1-1/2” TriClamp	LDHCSS1421.5TC*P
200	SS 304	1-1/2” TriClamp	LDHCSS2001.5TC*P
293	SS 304	1-1/2” TriClamp	LDHCSS2931.5TC*P

Available gaskets:

*S = Silicone

* E = EDPM

*V = Viton

Ordering example: LDHCSS471.5TCSP

LaBorso Disc Holder, Stainless Steel 304, 47mm Diameter, 1.5” TriClamp, Silicone Gakset.

Physical Properties	Maximum Operating Temp.	140°C (284°F)
	Maximum Operating Pressure	0.6 Mpa (6.0 bar)
Sterility	Sterilization Option	SIP/Autoclavable

Depth Filter Disc Holder

Diameter (mm)	Material	Inlet/Outlet	VBF Code
100	SS 316	1” TriClamp	VBDH100-DN25TC