MACHEREY-NAGEL

Chromatography

Columns and supplies

MACHEREY-NAGEL
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CHROMAFIL®
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PET-

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Sample filtration

Syringe filters are used for the filtration of suspended matter from liquid samples or gases. With CHROMAFIL® rapid purification and removal of particles is very simple: just place the filter on the syringe and you are ready for filtration. Special manipulations are not required. The contamination of sensitive instrumentation by solid impurities can be avoided, which leads to an increase of lifetime of chromatographic columns and equipment.

Advantages

Polypropylene housing

- Considerably better solvent stability compared to acrylate and polystyrene filters, featuring a low content of extractable substances

Lowest content of extractable substances

- The housing of every CHROMAFIL® filter is ultrasonically sealed (welded), not glued, because glue may have extractable ingredients. Welding leads to a tight connection between both parts, thus the filter can be used in both directions. The special thick rim of the housing is ideal for use in laboratory robots (e. g., SOTAX®, Benchmate™).

Luer lock on the side of entry

- For a safe connection on the high-pressure side every filter provides a Luer lock on the side of entry.

Luer exit

- For 3, 13 and 25 mm type filters: standard Luer exit
- For 15 mm type filters: minispike · This Luer configuration offers a low hold-up volume and easy filtration into autosampler vials and NMR tubes.
- With the aid of a special adapter, filter inlet and filter exit can be fitted to all CHROMABOND® columns and accessories for selective sample preparation.

No rupture of membrane due to the impact plate

- The input solvent stream is broken and distributed by the impact plate and does not directly hit the membrane: this prevents rupture of the membrane. The high pressure stream is diverted into four lanes.

Optimum flow geometry because of the star-shaped distribution device

- The stream of liquid is broken into 4 lanes by the impact plate and then further distributed to 8 slots in the form of a star connected with 5 or 8 circular channels (for 13, 15 and 25 mm type filters, respectively). Thus, the fluid is able to penetrate the membrane on the whole surface, not only on a small region; the filter is not plugged up rapidly, which results in a high-flow efficiency.

Color coded filters

- Filters with 0.2 µm pores have a yellow upper shell, that of filters with 0.45 µm pores is colorless; the different membrane types are distinguished by different colors of the lower shell.

Different pore sizes for versatile filtration

- Standard pore sizes 0.2 and 0.45 µm (additionally: PET filters with 1.2 µm, glass fiber filters with 1 µm, PES filters with 5 µm). Filters with 0.45 µm pore size efficiently remove fine particles that can plug chromatography columns. Filters with 0.2 µm pore size are excellent for filtration of UHPLC samples or other techniques requiring high purity samples.

Filter sizes

- Recommended filter type depending on sample volume

Sample volume	Recommended filter type	Effective membrane diameter*
≤ 1 mL	3 mm	3 mm
1 – 5 mL	13 mm, 15 mm	15.6 mm
5 – 100 mL	25 mm	22 mm

*Standardized measurement since June 2023. The product has not been modified.

- The small diameter filters are especially recommended for very small samples, which require extremely low dead volumes:
- 5 µL for 3 mm type, 30 µL for 13 mm type, 35 µL for 15 mm type, 80 µL for 25 mm type

Filters can be autoclaved at 121 °C, 1.1 bar for 30 min.

All 25 mm type CHROMAFIL® filters are designed to be 100 % compatible and reliable for use with the SOTAX® AT70 smart fully automated dissolution testing systems.

Depending on your filtration task you can choose filter membranes made from different materials:

Material	Page
Combi filters with glass fiber prefilters	
Polyamide (Nylon) (GF/PA)	89
Polytetrafluoroethylene (GF/PTFE)	89
Polyester (GF/PET)	90
Regenerated cellulose (GF/RC)	90
Polyvinylidene difluoride (GF/PVDF)	90
Syringe filters without prefilters	
Polyester (PET)	91
Regenerated cellulose (RC)	91
Polytetrafluoroethylene (PTFE)	92
Hydrophilized polytetrafluoroethylene (H-PTFE)	92
Cellulose mixed esters (MV)	93
Cellulose acetate (CA) · sterile and non-sterile	93
Polyamide / Nylon (PA)	94
Polyethersulfone (PES)	94
Polyvinylidene difluoride (PVDF)	91
Glass fiber (GF)	91
Special filter for ion chromatography (IC)	92

CHROMAFIL® BIGbox

- 400 color-coded quality syringe filters or 400 labeled Xtra syringe filters (25 mm type)
- 800 color-coded quality syringe filters (15 mm type)
- Food safe PE box with screw cap

CHROMAFIL® Xtra

Labeled for method validation and certification

- Xtra: imprint for direct identification of the membrane type, filter type and pore size
- Xtra: low bleeding PP housing
- Xtra: color-free plain polypropylene

CHROMAFIL® combi filters

Combi syringe filters with a coarse glass fiber prefilter and a small pore membrane as main filter

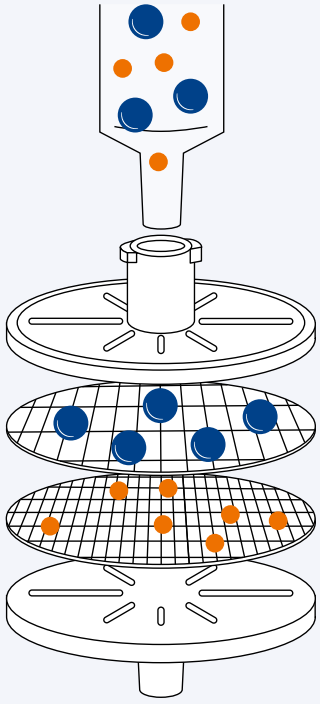
User benefits:

- For solutions with a high load of particulate matter: lower back pressure, easy filtration
- For high yields of filtrate: more mL of pure filtrate per filter

The technology

The glass fiber membrane (1.0 µm) removes coarse particles, before they can block the fine main membrane. This results in a better filtration efficiency, especially for highly contaminated samples.

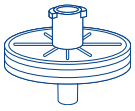
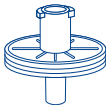
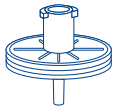
- Housing: solvent-resistant, ultra low bleeding polypropylene
- Inlet: luer lock
- Exit: luer
- Pore size: 1.0 / 0.20 µm or 1.0 / 0.45 µm
- Filter type: 25 mm
- Dead volume: < 80 µL
- Packing unit: 100 filters; BIGbox with 400 filters



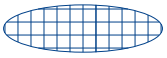
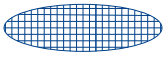
Selection guide for syringe filters

How to select the optimal CHROMAFIL® syringe filter

1. Filter size

Sample volume	5 – 100 mL	1 – 5 mL	< 1 mL
Filter type		 	
	25 mm	13 mm 15 mm	3 mm

2. Pore size of filter membrane

Sample size		
	For general purpose HPLC columns packed with particles ≥ 3 µm, GC, SFC, ...	 0.45 µm
	Recommended for UHPLC-, core-shell and HPLC columns, packed with particles ≤ 3 µm, GC, SFC, ...	 0.20 µm

3. Membrane type

Properties of sample	Recommended	Alternatives
Aqueous, polar hydrophilic		
Low particle-load High particle-load, prefiltration required	PET GF/PET	H-PTFE, MV, RC GF/RC, GF/PVDF
Mid-polar e. g. HPLC eluents		
Low particle-load High particle-load, prefiltration required	PET GF/PET	PA, RC GF/PA
Proteins		
Low binding capacity of proteins High binding capacity of proteins	CA GF	PVDF, PES GF/PVDF, GF/PET
Strong acids and bases		
Low particle-load High particle-load, prefiltration required	H-PTFE GF/PTFE	PTFE GF
Organic, nonpolar, hydrophob		
Low particle-load High particle-load, prefiltration required	PTFE GF/PTFE	PET GF/PET, GF/PVDF
Aqueous, for ion chromatography determinations	IC	

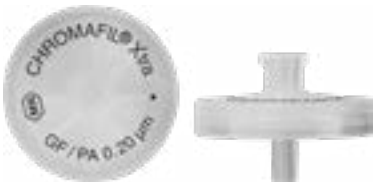
MACHEREY-NAGEL
CHROMAFIL Finder · easy switching to first-class filters

It is that simple

1. Choose previously used manufacturer
2. Choose previously used part number
3. Start searching
4. Suitable CHROMAFIL® syringe filter will be suggested

Use our CHROMAFIL Finder online at
www.mn-net.com/chromafilfinder

Polyamide (Nylon) with glass fiber prefilter (GF/PA)



Key features

- Moderately hydrophilic membrane
- For aqueous and organic/aqueous medium polar liquids
- Recommended for solutions with a high load of particulate matter or for highly viscous samples. Glass fiber exhibits a high protein-binding capacity.

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/Pack	REF
Xtra GF/PA-20/25	1.0/0.20	22	labeled	100	729260
Xtra GF/PA-45/25	1.0/0.45	22	labeled	100	729261

Polytetrafluoroethylene with glass fiber prefilter (GF/PTFE)

Key features

- Hydrophobic membrane
- For nonpolar liquids and gases
- Very resistant to all kinds of solvents as well as acids and bases; flushing with alcohol, followed by water, makes the originally hydrophobic membrane more hydrophilic
- Recommended for solutions with a high load of particulate matter or for highly viscous aqueous solutions. Glass fiber exhibits a high protein-binding capacity.

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/Pack	REF
Xtra GF/PTFE-20/25	1.0/0.20	22	labeled	100	729270
Xtra GF/PTFE-45/25	1.0/0.45	22	labeled	100	729271

Certificates of CHROMAFIL® syringe filters are online available

You can quickly and easily access the CoA of CHROMAFIL® syringe filters in two ways:

1. General website

Go to MN Chromatography homepage & Click on Chromatography service:
https://www.mn-net.com/chromatography-service
Choose Certificates of Analysis; type in the REF and LOT number; download PDF

2. Product website

Go to the individual product website, click on „Certificates of analysis“, enter the relevant LOT number and download PDF

MACHEREY-NAGEL

Certificate of Analysis

Product information

Product: CHROMAFIL® Xtra PA
REF: 729213
LOT: 210516

Technical data

Parameter | Specifications
Housing material: Polypropylene (PP)
Labeling: Membrane type imprinted on filter top
Membrane filter material: Polyamide
Pore diameter: 0.45 µm
Filter diameter: 25 mm
Filtration area: ~ 4.9 cm²
Max. pressure: 7 bar
Connection inlet: Female Luer lock
Connection outlet: Male Luer
Dead volume: ~ 80 µl

Minimum Shelf Life

Date of production: 20.06.2022
Best before: 20.06.2027

Confirmation

Hereby we confirm, that the above mentioned product has successfully passed our quality control system in accordance with ISO 9001 and meets the specific quality criteria.

This document has been produced electronically and is valid without a signature.

CHROMAFIL® syringe filters

Polyester with glass fiber prefilter (GF/PET)

Key features

- Hydrophilic multipurpose membrane
- For polar as well as nonpolar samples
- The HPLC filter with glass fiber prefilter, especially suited for mixtures of water and organic solvents
- Recommended for solutions with a high load of particulate matter or for highly viscous samples. Glass fiber exhibits a high protein-binding capacity.

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
GF/PET-20/25	1.0/0.20	22	blue	orange	100	729032	400	729032.400
GF/PET-45/25	1.0/0.45	22	black	orange	100	729033	400	729033.400

Regenerated cellulose with glass fiber prefilter (GF/RC)

Key features

- Hydrophilic membrane
- For aqueous and organic-aqueous liquids, i. e. polar and medium polar sample solutions
- Recommended for solutions with a high load of particulate matter or for highly viscous aqueous solutions. Glass fiber exhibits a high protein-binding capacity.

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
GF/RC-20/25	1.0/0.20	22	blue	blue	100	729050	400	729050.400
GF/RC-45/25	1.0/0.45	22	black	blue	100	729051	400	729051.400

Polyvinylidene difluoride with glass fiber prefilter (GF/PVDF)

Key features

- Hydrophilic membrane
- Recommended for the filtration of biological samples with high particle loads. Glass fiber exhibits a high proteinbinding capacity.
- Also suited for the filtration of aqueous samples

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
GF/PVDF-45/25	1.0/0.45	22	black	white	100	729039	400	729039.400

Polyester (PET)

Key features

- Hydrophilic multipurpose membrane
- For polar as well as nonpolar solvents
- The HPLC filter, especially suited for mixtures of water and organic solvents
- For TOC/DOC determination
- Not cytotoxic, does not inhibit the growth of microorganisms and higher cells

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
PET-20/13	0.20	15.6	labeled	100	729222		
PET-45/13	0.45	15.6	labeled	100	729223		
PET-20/25	0.20	22	labeled	100	729221	400	729221.400
PET-45/25	0.45	22	labeled	100	729220	400	729220.400
PET-120/25	1.2	22	labeled	100	729229	400	729229.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
PET-20/15 MS	0.20	15.6	yellow	orange	100	729022	800	729022.800
PET-45/15 MS	0.45	15.6	colorless	orange	100	729023	800	729023.800
PET-20/25	0.20	22	yellow	orange	100	729021	400	729021.400
PET-45/25	0.45	22	colorless	orange	100	729020	400	729020.400

MS = minispike on filter exit

Regenerated cellulose (RC)

Key features

- Hydrophilic membrane with very low adsorption
- For aqueous and organic aqueous liquids, i. e. polar and medium polar sample solutions
- Binding capacity for proteins 84 µg per 25 mm filter

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
RC-20/13	0.20	15.6	labeled	100	729236		
RC-45/13	0.45	15.6	labeled	100	729237		
RC-20/25	0.20	22	labeled	100	729230	400	729230.400
RC-45/25	0.45	22	labeled	100	729231	400	729231.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
RC-20/15 MS	0.20	15.6	yellow	blue	100	729036	800	729036.800
RC-45/15 MS	0.45	15.6	colorless	blue	100	729037	800	729037.800
RC-20/25	0.20	22	yellow	blue	100	729030	400	729030.400
RC-45/25	0.45	22	colorless	blue	100	729031	400	729031.400

MS = minispike on filter exit

CHROMAFIL® syringe filters

Polytetrafluoroethylene (PTFE)

Key features

- Hydrophobic membrane
- For nonpolar liquids and gases
- Very resistant towards all kinds of solvents as well as acids and bases
- Flushing with alcohol, followed by water, makes the originally hydrophobic membrane more hydrophilic

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
PTFE-20/13	0.20	15.6	labeled	100	729208		
PTFE-45/13	0.45	15.6	labeled	100	729209		
PTFE-20/25	0.20	22	labeled	100	729207	400	729207.400
PTFE-45/25	0.45	22	labeled	100	729205	400	729205.400
PTFE-100/25	1.0	22	labeled	100	729247		

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/Pack	REF
PTFE-20/3	0.20	3	colorless	colorless	100	729014		
PTFE-45/3	0.45	3	colorless	colorless	100	729015		
PTFE-20/15 MS	0.20	15.6	yellow	colorless	100	729008	800	729008.800
PTFE-45/15 MS	0.45	15.6	colorless	colorless	100	729009	800	729009.800
PTFE-20/25	0.20	22	yellow	colorless	100	729007	400	729007.400

MS = minispike on filter exit

Hydrophilized polytetrafluoroethylene (H-PTFE)

Key features

- Hydrophobic membrane with additional hydrophilic characteristic
- For polar and nonpolar solutions
- Resistant towards all kinds of solvents as well as acids and bases

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
H-PTFE-20/13	0.20	15.6	labeled	100	729256		
H-PTFE-45/13	0.45	15.6	labeled	100	729257		
H-PTFE-20/25	0.20	22	labeled	100	729245	400	729245.400
H-PTFE-45/25	0.45	22	labeled	100	729246	400	729246.400

Cellulose mixed esters (MV)

Key features

- Hydrophilic membrane with very low adsorption
- For aqueous or polar solutions

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
MV-20/25	0.20	22	labeled	100	729206		
MV-45/25	0.45	22	labeled	100	729204	400	729204.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/Pack	REF
MV-20/25	0.20	22	yellow	yellow	100	729006	400	729006.400
MV-45/25	0.45	22	colorless	yellow	100	729004	400	729004.400

Cellulose acetate (CA)

Key features

- Hydrophilic membrane
- For the filtration of water-soluble oligomers and polymers, especially suited for biological macromolecules
- Very high shape stability in aqueous solutions
- Extremely low binding capacity for proteins (21 µg / 25 mm type filter)
- Also available in a sterile package (S) for filtration under sterile conditions (each filter individually sealed)

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
CA-20/13	0.20	15.6	labeled	100	729254		
CA-45/13	0.45	15.6	labeled	100	729255		
CA-20/25	0.20	22	labeled	100	729226	400	729226.400
CA-45/25	0.45	22	labeled	100	729227	400	729227.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/Pack	REF
CA-20/25	0.20	22	yellow	red	100	729026	400	729026.400
CA-45/25	0.45	22	colorless	red	100	729027	400	729027.400
Sterile filters								
CA-20/25 (S)	0.20	22	yellow	red	50	729024		
CA-45/25 (S)	0.45	22	colorless	red	50	729025		
MS = minispike on filter exit; S = sterile filters								

CHROMAFIL® syringe filters

Polyamide (PA) = Nylon

Key features

- Moderately hydrophilic membrane
- For aqueous and organic aqueous medium polar liquids

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
PA-20/13	0.20	15.6	labeled	100	729248		
PA-45/13	0.45	15.6	labeled	100	729249		
PA-20/25	0.20	22	labeled	100	729212	400	729212.400
PA-45/25	0.45	22	labeled	100	729213	400	729213.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/Pack	REF
PA-20/3	0.20	3	colorless	colorless	100	729010		
PA-45/3	0.45	3	colorless	colorless	100	729011		
PA-20/15 MS	0.20	15.6	yellow	green	100	729048	800	729048.800
PA-45/15 MS	0.45	15.6	colorless	green	100	729049	800	729049.800
PA-20/25	0.20	22	yellow	green	100	729012	400	729012.400
PA-45/25	0.45	22	colorless	green	100	729013	400	729013.400
MS = minispike on filter exit								

Polyethersulfone (PES)

Key features

- Hydrophilic membrane
- For aqueous liquids and aqueous liquids with low organic contents
- Very low adsorption of pharmaceuticals and proteins
- Good stability against acids and bases
- Binding capacity for proteins 29 µg per 25 mm type filter

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
PES-20/25	0.20	22	labeled	100	729240	400	729240.400
PES-45/25	0.45	22	labeled	100	729241	400	729241.400
PES-500/25	5.0	22	labeled	100	729242		

Polyvinylidene difluoride (PVDF)

Key features

- Hydrophilic membrane
- For 100 % aqueous samples, water-soluble oligomers and polymers like proteins
- Binding capacity for proteins 20 µg per 25 mm filter type

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
PVDF-20/13	0.20	15.6	labeled	100	729243		
PVDF-45/13	0.45	15.6	labeled	100	729244		
PVDF-20/25	0.20	22	labeled	100	729218	400	729218.400
PVDF-45/25	0.45	22	labeled	100	729219	400	729219.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF
PVDF-20/15 MS	0.20	15.6	yellow	white	100	729043
PVDF-45/15 MS	0.45	15.6	colorless	white	100	729044
MS = minispike on filter exit						

Glass fiber (GF)

Key features

- Inert filter, nominal pore size 1 µm, allows higher flow rates than small pore filters
- For solutions with high loads of particulate matter or for highly viscous solutions (e. g., soil samples, fermentation broths). Glass fiber exhibits a high protein-binding capacity.
- As prefilters for other CHROMAFIL® filters, they prevent plugging of the membrane

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/pack	REF	BIGbox Filters/pack	REF
GF-100/13	nominal 1.0	15.6	labeled	100	729234		
GF-100/25	nominal 1.0	22	labeled	100	729228	400	729228.400

CHROMAFIL®

Type	Pore size [µm]	Effective membrane diameter [mm]	Color code Top	Bottom	Standard pack Filters/pack	REF	BIGbox Filters/Pack	REF
GF-100/15 MS	nominal 1.0	15.6	blue	colorless	100	729034		
GF-100/25	nominal 1.0	22	yellow	black	100	729028	400	729028.400
MS = minispike on filter exit								

CHROMAFIL® syringe filters

Special filter for ion chromatography (IC)

Key features

- For the filtration of aqueous liquids
- For optimal results with blind values < 5 ppb we recommend to prewash the filter with deionized water

CHROMAFIL® Xtra

Type	Pore size [µm]	Effective membrane diameter [mm]		Standard pack Filters/Pack	REF
IC-45/25	0.45	22	labeled	100	729258

Hints for using CHROMAFIL® syringe filters

For optimum filtration results we recommend to keep the following in mind:

- Either discard the first mL or rinse the filter unit with 1 mL of the solvent prior to filtration
- Before filling the syringe, draw about 1 mL air into the syringe in order to minimize the liquid remaining in the filter
- Start filtration with a slight pressure; this will optimize the throughput of the filter. As soon as particles accumulate on the filter, filtration will become more difficult and the pressure on the filter will increase.
- Change the filter whenever the resistance becomes too large in order to prevent rupture of the housing
- Do not apply CHROMAFIL® syringe filters on humans; they are only intended for lab use!
- Always use syringes ≥ 10 mL; smaller syringes can easily cause pressures above the 6 bar limit of the filters
- The temperature should not exceed 55 °C
- Do not re-use the filters

Disposable syringes with Luer tip

Key features

- Body and piston made from polypropylene (non sterile)

Volume	Pack of	REF
2 mL	100	729100
5 mL	100	729101
10 mL	100	729102

Chemical compatibility of CHROMAFIL®

Chemical compatibility of filter materials

The chemical compatibility depends on several parameters such as time, pressure, temperature and concentration. In most cases, CHROMAFIL® filters will have only short contact with a solvent. In these cases they may be used despite of limited compatibility.

For example, a PTFE filter with PP housing does not liberate any UV-detectable substances during filtration of 5 mL THF, although PP shows only limited resistance towards THF.

The following table lists the chemical compatibility of our CHROMAFIL® materials.

Solvent	Material											
	MV	CA	RC	PA	PTFE	H-PTFE	PVDF	PES	PET	GF	IC	PP
Acetaldehyde	–	–	+	O	+	+	+		+	+		O
Acetic acid, 100 %	–	–	–	–	+	+	+	+	+	+		+
Acetone	–	–	+	+	+	+	–	–	+	+		+
Acetonitrile	–	–	+	+	+	+	+	+	+	+		+
Ammonia, 25 %	–	–	O	–	+	+	+	+	O	+	–	+
Benzene	+	+	+	+	+	+	O	+	+	+		O
n-Butanol	+	+	+	O	+	+	+	+	+	+		+
Cyclohexane	+	+	+	O	+	+	+	+	+	+		+
Dichloromethane	+	–	+	–	+	+	+	–	+	+		–
Diethyl ether	O	O	+	+	+	+	+	+	+	+		O
Dimethylformamide	–	–	O	+	+	+	–	–	+	+		+
1,4–Dioxane	–	–	+	+	+	+	O	–	+	+		O
Ethanol	–	+	+	+	+	+	+	+	+	+		+
Ethyl acetate	–	–	+	+	+	+	+	+	+	+		O
Ethylene glycol	O	O	+	+	+	+	+	+	+	+		+
Formic acid, 100 %	+	–	O	–	+	+	+	+	O	+		+
Hydrochloric acid, 30 %	–	–	–	–	+	+	+	+	–	+	–	+
Methanol	–	–	+	+	+	+	+	+	+	+		+
Nitric acid, 65 %	–	–	–	–	O	+	O		O	+	–	–
Oxalic acid, 10 % aqueous	+	–	+	–	+	+	+		+	+		+
Petroleum ether	+	+	+	+	+	+	+	+	+	+		+
Phosphoric acid, 80 %	–	–	O	–	+	+	O		+	+	–	+
Potassium hydroxide, 1 mol/L	–	–	O	+	+	+	O	O	O	+	+	+
2–Propanol	+	+	+	+	+	+	+	+	+	+		+
Sodium hydroxide, 1 mol/L	–	–	O	+	+	+	O	O	O	O	+	+
Tetrachloromethane	+	–	+	+	+	+	O		+	+		O
Tetrahydrofuran	–	–	+	O	+	+	+	–	+	+		O
Toluene	+	–	+	+	+	+	+	+	+	+		O
Trichloroethene	+	+	+	O	+	+	+	O	+	+		O
Trichloromethane (chloroform)	+	–	+	–	+	+	+	–	+	+		–
Urea	+	+	+	+	+	+	+		+	+		+
Water	+	+	+	+	+	+	+	+	+	+	+	+
Xylene	+	+	+	+	+		O	O	+	+		O

Data not guaranteed.

+ resistant, – not resistant, O limited resistance

Material

Membranes

MV = cellulose mixed esters, CA = cellulose acetate, RC = regenerated cellulose, PA = polyamide,
PTFE = polytetrafluoroethylene, H-PTFE = hydrophilized polytetrafluoroethylene, PVDF = polyvinylidene difluoride, PES = polyethersulfone,
PET = polyester, GF = glass fiber, IC = special filter for ion chromatography

Housing material

PP = polypropylene

CHROMAFIL® filtration cartridges · MULTI 96

CHROMAFIL® filtration cartridges

Key features

- Filtration cartridges for sample clarification under vacuum (e.g., using the CHROMABOND 96-well plates vacuum manifold or SPE automation systems like Gilson ASPEC™, Rapidtrace®) or by gravity
- Cartridge sizes 3 mL and 6 mL
- Different membranes (PET, PTFE, GF) and pore sizes (0.2, 0.45 and 1.0 µm). Membrane materials correspond to the respective CHROMAFIL® syringe filters.

CHROMAFIL® filtration cartridges

Description	Pore size [µm]	Pack of [cartridges]	Column volume	
			3 mL	6 mL
Filtration cartridges PET (polyester)	0.20	100		730578.620
Filtration cartridges PET (polyester)	0.45	100		730578.645
Filtration cartridges PTFE (polytetrafluoroethylene)	0.20	100	730570.320	730570.620
Filtration cartridges PTFE (polytetrafluoroethylene)	0.45	100	730570.345	730570.645
Filtration cartridges GF (glass fiber)	nom. 1.0	100	730517.3100	730517.6100

CHROMAFIL® MULTI 96 filter plates

Key features

- 96-well polypropylene plates for the simultaneous filtration of 96 samples
- Advantages of this high-throughput system are:
- Economical by saving time and solvent
- The use of multi-channel pipetters facilitates liquid transfer steps
- Readily adaptable to all common automated and robotic handling systems
- Minimized dead volume (≤ 40 µL)
- Membrane materials correspond to the respective CHROMAFIL® syringe filters

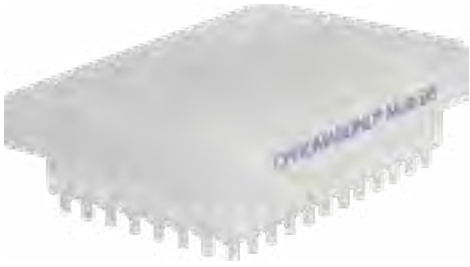
CHROMAFIL® MULTI 96 Filter plates

Description	Pack of	REF
Filter plates with cellulose mixed ester filter elements (0.20 µm)	1	738770.M
Filter plates with cellulose mixed ester filter elements (0.45 µm)	1	738771.M
Filter plates with RC filter elements (regenerated cellulose 0.2 µm)	1	738656.M
Filter plates with RC filter elements (regenerated cellulose 0.45 µm)	1	738657.M
Filter plates with PTFE filter elements (0.2 µm)	1	738660.M
Filter plates with PTFE filter elements (0.45 µm)	1	738661.M
Filter plates with PTFE filter elements (3.0 µm)	1	738663.M
Filter plates with PE filter elements (40 – 100 µm)	1	738659.M
Filter plates with glass fiber filter elements (nominal 1 µm)	1	738655.2M
Filter plates with glass fiber filter elements (nominal 3 µm)	1	738658.M
CHROMABOND® MULTI 96 vacuum manifold for monoblocks, with reservoir tank, vacuum gauge and control valve, for filtration with 96-well filter plates	1	738630.M

MN Tip: High throughput (HTP) product solutions for solid phase extraction (SPE)

Solid phase extraction with
CHROMABOND® Multi 96 plates!

Find all CHROMABOND® Multi 96-well plates in our Webshop!



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