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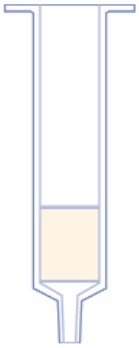


1 CHROMABOND® C_{18}

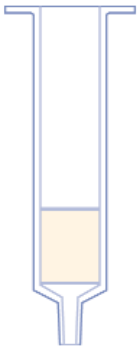
Octadecyl modified silica phase for SPE, not endcapped *MACHEREY-NAGEL*

Base material silica, pore size 60 Å, particle size 45 µm for C_{18}, specific surface 500 m²/g, pH stability 2 to 8 octadecyl phases, not endcapped, carbon content 14 % possesses more free silanols (SiOH), which allow secondary interactions with polar groups of the analytes.

Recommended applications: non-polar compounds, pesticides.

Capacity ml	Capacity mg	PK	Cat. No.
1	100	100	**6.226 798**
3	200	50	**9.003 487**
3	500	50	**9.003 488**
6	500	30	**6.902 222**
6	2000	30	**4.003 512**
6	1000	30	**6.234 031**
15	2000	20	**4.003 464**
45	5000	20	**6.700 747**
70	10000	10	**4.003 561**
3	500	250	**4.003 433**
6	500	250	**4.003 435**
6	1000	250	**4.003 437**

2



2 CHROMABOND® C_{18} Hydra

Octadecyl modified silica phase for SPE of polar analytes *MACHEREY-NAGEL*

Base material silica, pore size 60 Å, particle size 45 µm, specific surface 500 m²/g, pH stability 2 to 8, special octadecyl phase for polar analytes, not endcapped, carbon content 15 %.

Recommended applications: more polar compounds like pesticides and their polar degradation products, phenols, phenoxycarboxylic acids, nitroaromatics, pharmaceuticals.

Capacity ml	Capacity mg	PK	Cat. No.
1	50	100	**4.003 565**
1	100	100	**4.003 566**
3	200	50	**4.003 567**
3	500	50	**4.003 569**
6	500	30	**4.003 573**
3	1000	50	**4.003 571**
6	1000	30	**4.003 575**
6	2000	30	**4.003 576**
6	3000	30	**4.003 577**

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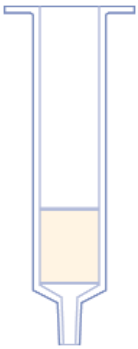


3 CHROMABOND® SiOH

Unmodified silica phase for SPE *MACHEREY-NAGEL*

Unmodified, weakly acidic silica, pore size 60Å, particle size 45µm, specific surface 500m²/g, pH stability 2 to 8, very polar, adsorbs humidity from air, for this reason it should be kept well closed and if necessary dried before use due to its high affinity for polar compounds it should not be conditioned with polar (e.g. methanol) or water-containing solvents.

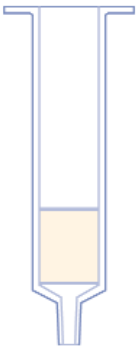
Recommended applications: aflatoxins, chloramphenicol, pesticides, steroids, vitamins.

Capacity ml	Capacity mg	PK	Cat. No.
1	100	100	**6.225 223**
3	200	50	**4.003 547**
3	500	50	**7.085 047**
6	500	30	**6.801 894**
6	1000	30	**4.003 481**
6	2000	30	**4.003 498**
15	2000	20	**4.003 550**
45	5000	20	**4.003 605**
70	10000	10	**6.202 850**
150	50000	10	**4.003 630**
3	500	250	**4.003 477**
6	1000	250	**4.003 482**
6	2000	250	**4.003 499**

1 CHROMABOND® HR-P

NEW

1



Polystyrene-divinylbenzene adsorbent resin for SPE *MACHEREY-NAGEL*

Basic material: Highly porous polystyrene-divinylbenzene copolymer specific surface 1200 m²/g.
Particle size 50-100 µm very high binding capacity, up to 30 % of adsorbent weight.
Recommended application: aromatic compounds, phenols from water, nitroaromatics from water, pesticides from water, PAHs from oil

Type	Capacity ml	Capacity mg	PK	Cat. No.
HR-P	3	200	30	**9.003 489**
HR-P	3	500	30	**9.003 490**
HR-P	6	200	30	**4.003 509**
HR-P	6	500	30	**7.090 346**
HR-P*	6	500	30	**4.003 506**
HR-P	6	1000	30	**6.224 844**
HR-P*	6	1000	30	**4.003 508**

*Glass column

2 CHROMABOND® HR-X

2

Spherical, hydrophobic polystyrene-divinylbenzene resin for SPE *MACHEREY-NAGEL*

Hydrophobic polystyrene-divinylbenzene copolymer pH stability 1 to14. High-purity material with highest reproducibility and lowest blank values due to a novel manufacturing process, spherical particles 85 mm; pore size 55 to 60 Å. Very high surface 1000 m²/g; capacity 390 mg/g (caffeine in water). Excellent recovery rates especially for the enrichment of pharmaceuticals/active ingredients due to the spherical structure of the particles, very homogeneous surface, and optimised pore structure.

Recommended applications: pharmaceuticals/active ingredients from tablets, creams and water/waste water, drugs and pharmaceuticals from urine, blood, serum and plasma trace analysis of pesticides.

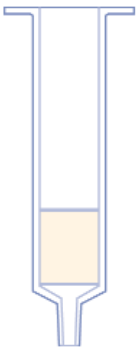
Capacity ml	Capacity mg	PK	Cat. No.
1	30	30	**4.003 808**
3	60	30	**4.003 811**
1	100	30	**4.003 809**
3	200	30	**4.003 805**
6	200	30	**4.003 814**
3	500	30	**4.003 813**
6	500	30	**4.003 817**
15	500	20	**4.003 819**
15	1000	20	**4.003 820**
3	200	250	**4.003 806**
6	200	250	**4.003 815**

Cartridges in further sizes and phases of the HR-X poduct range available on request.

3 CHROMABOND® PS-OH⁻/PS-H⁺

NEW

3



SPE phases for polymer-based RP and ion chromatography *MACHEREY-NAGEL*

Base material: high-purity polystyrene-divinylbenzene copolymers (PS/DVB)
pore size 100 Å, paricle size 100µm. Verly low degree of swelling, thus very well suited for chromatography. Different modifications for different applications from elimination of nonpolar compounds up to removal of specific polar comonents.

Recommended application:
Removal of interfering compounds
- improves chromatographic separtions, if the interfering components overlap with the analyte in the chromatogram
- improves lifetime of the chromatographic column, since interfering components can irreversibly block the column packing

removal or concentration of anions from water increasing the pH value in acidic samples removal or concentration of cations from water

PS-OH⁻ strong PS/DVB anion exanger, OH⁻ form capacity 0.6 meq/g

decreasing the pH value in basic samples

PS-H⁺ strong PS/DVB cation exchanger, H⁺ form, capacity 2.9 meg/g

Phase	Capacity ml	Capacity mg	PK	Cat. No.
PS-OH-	3	200	30	**4.003 600**
PS-H+	3	200	30	**4.003 702**
PS-OH-	3	500	30	**4.003 581**
PS-H+	3	500	30	**4.003 589**
PS-OH-	6	500	30	**4.003 591**
PS-H+	6	500	30	**4.003 590**

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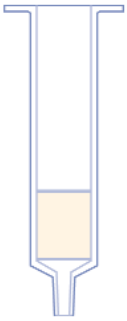

1 CHROMABOND® CN/SiOH

Combination phase for SPE analysis of PAH *MACHEREY-NAGEL*

Special combination phase, cyanopropyl phase for selective adsorption of polycyclic aromatics via Π-Π interactions, unmodified silica phase for removal of polar compounds.

Recommended applications: Extraction of the 16 PAHs according to EPA from soil samples.

Capacity ml	Capacity ml / mg	PK	Cat. No.
3	500 / 1000	50	**4.003 507**
6	500 / 1000	30	**6.233 128**
6	500 / 1000	250	**4.003 514**

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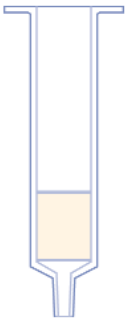


2 CHROMABOND® Florisil®

Magnesium silicate for SPE *MACHEREY-NAGEL*

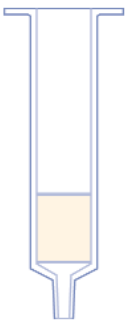
Matrix magnesium silicate (MgO to SiOH 15:85), high purity, particle size 150 to 250 µm.

Recommended application: organic tin compounds, aliphatic carboxylic acids, PCB, PAH.

Volume ml	Capacity mg	PK	Cat. No.
3	200	50	**4.003 624**
3	500	50	**4.003 488**
6	500	30	**4.003 557**
6	1000	30	**6.224 842**
6	1000	250	**4.003 489**
6*	1000	30	**4.003 490**

*Glass columns

3



3 CHROMABOND® SA

Benzenesulphonic acid modified silica cation exchanger for SPE (SCX) *MACHEREY-NAGEL*

Base material silica, pore size 60 Å, particle size 45 µm, specific surface 500 m²/g, pH stability 2 to 8, benzenesulphonic acid modified silica, strongly acidic cation exchanger (capacity ~ 0.5 meq/g).
Adsorbent with hydrophobic and Π-Π interactions (benzene ring). Ion exchange of organic compounds from aqueous matrix. Elution of interesting compounds with solvent systems, which compensate the ionic and nonpolar interactions, e.g. methanolic HCl.

Recommended application: amino acids, amines, chlorophyll, PCB.

Capacity ml	Capacity mg	PK	Cat. No.
1	100	100	**6.314 563**
3	200	50	**4.003 563**
3	500	50	**7.051 056**
6	500	30	**4.003 613**
6	1000	30	**6.224 846**
3	500	250	**4.003 485**

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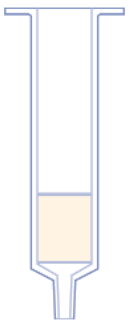


4 CHROMABOND® SA/SiOH

NEW

Combination phase for SPE analysis of PCB *MACHEREY-NAGEL*

Special combination phase:
SA: strongly acidic cation exchanger based on silica with benzenesulphonic acid modification.
SiOH: unmodified silica for removal of polar compounds.

Recommended application: extraction of PCB from waste oil (hexane extract).

Capacity ml	Capacity ml / mg	PK	Cat. No.
3	500 / 500	50	**6.901 798**
3	500 / 500	250	**4.003 513**

1 CHROMABOND® Na_2SO_4/Florisil®

NEW

Combination phase for SPE of hydrocarbons from water acc. to DIN H53/ISO DIS 9377-4

MACHEREY-NAGEL

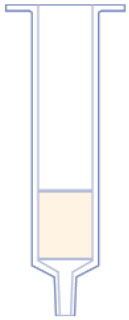
Special combination phase of sodium sulphate and Florisil®.

Recommended application: hydrocarbons from drinking, surface and waste waters.

Volume ml	Capacity ml / mg	PK	Cat. No.
6	2000 / 2000	30	**4.003 558**
6*	2000 / 2000	30	**6.900 415**
6*	2000 / 2000	250	**4.003 559**

*Glass columns

1



2 CHROMABOND® XTR

NEW

Kieselguhr phase for liquid-liquid extraction

MACHEREY-NAGEL

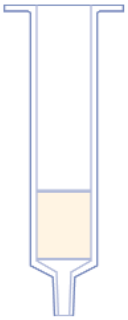
Base material coarse-grained kieselguhr, large pore size, high pore volume, constantly high batch-to-batch quality, pH working range 1 to 13.

Application: liquid-liquid extraction of highly viscous aqueous solutions such as physiological fluids (blood, plasma, and serum) in clinical chemistry, dyes in textiles, environmental and food analysis.

Glass columns availlable on request.

Capacity ml	Capacity g	Max. load with aqueous solution ml	PK	Cat. No.
1	0.25	0.25	100	**4.003 645**
3	1.50	0.50	50	**4.003 646**
6	1.00	1.00	30	**4.003 636**
6	1.00	1.00	250	**4.003 637**
15	3.00	3.00	30	**4.003 638**
30	4.50	5.00	30	**6.205 372**
45	8.30	10.00	30	**4.003 647**
70	14.50	20.00	30	**6.225 180**
70	14.50	20.00	100	**4.003 648**
150	37.50	50.00	10	**4.003 650**

2



3 CHROMAFIX® C_{18}

Octadecyl modified silica phase for SPE, not endcapped

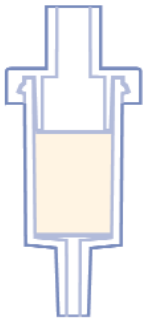
MACHEREY-NAGEL

Base material silica, pore size 60 Å, particle size 45 µm for C_{18}, specific surface 500 m^2/g, pH stability 2 to 8 octadecyl phases, not endcapped, carbon content 14 % possesses more free silanols (SiOH), which allow secondary interactions with polar groups of the analytes.

Recommended applications: non-polar compounds, pesticides.

Size	Capacity mg	PK	Cat. No.
S	270	50	**7.083 665**
M	530	50	**7.079 617**
L	950	50	**4.003 838**

3



4 CHROMAFIX® C_{18} ec

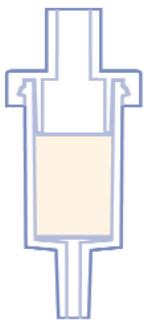
NEW

Octadecyl-modified silica gel phase for SPE, endcapped

Base material: Silica, pore size 60 Å, particle size 45 µm, specific surface 500 m^2/g, pH stability 2-8 octadecyl phases, endcapped, carbon content 14 %, non-polar, hydrophobic interactions with a wide variety of organic compounds.
Recommended application: Non-polar compounds, aflatoxins, amphetamines, antibiotics, antiepileptics, barbiturates, caffeine, drugs, preservatives, fatty acids, nicotine, PAHs, pesticides, PCBs, heavy metals, vitamins.
Very well suited for desalting of samples.

Size	Capacity mg	PK	Cat. No.
S	270	50	**4.003 839**
M	530	50	**4.003 840**
L	950	50	**4.003 841**

4



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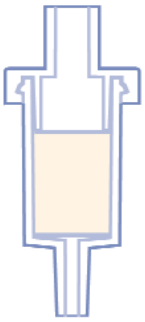

1 CHROMAFIX® PS

MACHEREY-NAGEL

Size	Phase	Capacity mg	PK	Cat. No.
S	PS-RP	200	50	**4.003 869**
S	PS-OH-	200	50	**4.003 867**
S	PS-H+	230	50	**4.003 866**
S	PS-Ag+	240	50	**4.003 865**
S	PS-Ba2+	280	50	**4.003 868**
M	PS-RP	320	50	**6.228 258**
M	PS-OH-	380	50	**4.003 861**
M	PS-H+	430	50	**7.401 474**
M	PS-Ag+	480	50	**4.003 864**
M	PS-Ba2+	550	50	**7.402 218**
L	PS-OH	800	50	**4.003 862**
L	PS-H+	900	50	**4.003 863**

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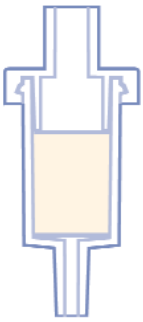

2 CHROMAFIX® Dry

NEW

Special phase for drying organic samples

MACHEREY-NAGEL

Basic material: Sodium sulfate.
Recommended application: removal of traces of water from organic solutions.

Size	Capacity mg	PK	Cat. No.
S	780	50	**4.003 858**
M	1500	50	**4.003 859**
L	2800	50	**4.003 860**

3

3 CHROMABOND® vacuum manifolds and accessories

For simultaneous preparation of up to 12, 16 or 24 samples, replacement parts and accessories for special applications

MACHEREY-NAGEL

Vacuum manifold complete consists of: glass cabinet with lid and lid gasket, removable needles on lower side of lid, vacuum gauge, control valve, valves and caps, variable rack.

Description	PK	Cat. No.
Vacuum manifold complete for up to 12 columns or cartridges (incl. reservoir tank)	1	**9.003 479**
Vacuum manifold complete for up to 16 columns or cartridges	1	**4.003 586**
Vacuum manifold complete for up to 24 columns or cartridges	1	**7.056 914**
Lids with gaskets for 12 columns (incl. Luer fittings and valves), plastic	1	**4.003 530**
Gaskets for lid with 12 positions (4.003 530, 9.003 479)	2	**6.801 608**
Luer fittings for lid, female	12	**4.003 534**
Luer fittings for lid, male	12	**4.003 535**
Valves, plastic	12	**7.089 161**
Stainless steel needles	12	**7.079 432**
Drying attachment for 12 columns	1	**4.003 536**
Products for protection from cross contamination valve, brass, tarnished	1	**4.003 538**
Products for protection from cross contamination valve as above	12	**7.089 162**
Products for protection from cross contamination stainless steel connectors	12	**7.079 431**
Tubing adaptor for 1,3 and 6 ml polypropylene columns (PTFE)	4	**6.900 713**

1 SPE phases for food analysis

QuEChERS method and pre-mixes
Within a few years after its devleopment by Anastassiades et al. the QuEChERS method has gained a leading position for determination of pesticide residues in food by GC-MS or LC-MS allowing rapid and cheap clean-up of strong matrix-contaminated samples.
Standard clean-up of food samples
10 g sample are homogenised with 10 ml acetonitrile. After adding the internal standard the sample is shaken with 4 g $MgSO_4$ and 1 g NaCI and afterwards centrifuged. 1 ml of the supernantant is spiked with 25 mg CHROMABOND® Diamino and 150 mg $MgSO_4$ and shaken again. After centrifugation the supernatant is injected into the GC/MS.

For optimising the extraction of pH-dependent compounds, for minimising decomposition of sensitive substances and for broadending the matrix spectrum, different modifications of the QuEChERS method have been elaborated.

2 CHROMABOND® QuEChERS extraction buffer mixes/clean-up mixes

Extraction mixtures for sample preparation for determination of pesticides in food samples. *MACHEREY-NAGEL*

MACHEREY-NAGEL offers a number of individually weighed and pre-mixed buffers and extraction mixtures, specially composed for different sample matrices.
Mix I and Mix II are extraction mixtures, Mix III to Mix VI are clean-up mixtures.

The food samples will be extracted with either Mix I or Mix II.
Afterwards they will be purified with one of the following mixtures:
- Mix III (samples with low fat content; e.g. apples, strawberries),
- Mix IV (moderate content of chlorophyll and carotinoids; e. g. carrots, lettuce),
- Mix V (high content of chlorophyll and carotinoids; e. g. bell peppers, spinach),
- Mix VI (high fat content; e. g. avocados).

Every mix is prepacked in a 15 ml centrifuge tube. Pack of 50 pieces.

Description	Capacity ml	Composition	PK	Cat. No.
Mix I Citrat-Extraction-Mix	15	4 g $MgSO_4$, 1 g NaCl, 0.5 g Na_2H citrate 1.5 H_2O, 1 g Na_3 citrate, 2 H_2O	50	**4.003 824**
Mix I Citrat-Extraction-Mix	15	0.8 g $MgSO_4$, 0.2 g NaCI, 0.1 g Na_2H-citrate 1.5 H_2O, 0.2 g Na_3-citrate	50	**7.971 498**
Mix II Acetat-Extraction-Mix	15	6 g $MgSO_4$, 1.5 g Na acetate	50	**4.003 825**
Mix III Diamino Clean-up Mix	15	0.15 g CHROMABOND® Diamino with 0.9 g $MgSO_4$	50	**4.003 826**
Mix IV Diamino/Carbon Clean-up Mix	15	0.15 g CHROMABOND® Diamino with 0.9 g $MgSO_4$ and 15 mg Carbon	50	**4.003 827**
Mix V Diamino/Carbon Clean-up Mix	15	0.15 g CHROMABOND® Diamino with 0.9 g $MgSO_4$ and 45 mg Carbon	50	**4.003 829**
Mix VI Diamino/C_{18} ec Clean-up Mix	15	0.15 g CHROMABOND® Diamino with 0.9 g $MgSO_4$ and 150 mg C_{18} ec	50	**4.003 828**

3 Accessories CHROMABOND® QuEchERS

Empty PP centrifuge tube with screw cap, 50 ml, without QuEchERS mixtures. *MACHEREY-NAGEL*

Type	PK	Cat. No.
50ml PP-centrifuge tube with crew cap	50	**4.003 552**

For more centrifuge tubes, please see page 679.

14. Chromatography
Sample preparation/Syringe filters

Chemical compatibility of filter materials

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

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

Data not guaranteed. ⊕ resistant, ⊖ not resistant, ○ limited resistance

MV = cellulose mixed esters, CA = cellulose acetate, RC = regenerated cellulose, PA = polyamide, PTFE = polytetrafluoroethylene (Teflon), PVDF = polyvinylidene difluoride, PES = polyethersulfone, PET = polyester, GF = glass fibre, PP = polypropylene (housing material)

LLG-Syringe Filters

We offer a line of syringe filters especially designed to provide efficient filtration of a broad variety of fluids, solvents, aqueous or inorganic solutions.
Our syringe filters cover most applications in HPLC, pharmaceutical, environmental, biotechnology and food and beverage testing laboratories.
- Housing injected in Polypropylene or MABS
- Multifunctional Syringe filters equipped with Luer-Lock connections on both sides or female Luer-Lock input and male Luer-Slip output
- Pre-sterilised or non-sterile
- Sterile products in individual hard blister
- Superior pressure stability

LLG Syringe Filter CA, Cellulose acetate

Hydrophilic membrane for filtration of aqueous solutions.
This membrane features excellent shape stability in aqueous solutions and a very low binding capacity for proteins (21 µg per 25 mm Filter). Ideal for use with biological macromolecules, water soluble oligomers and polymers.
With Luer-Lock input and Luer-Lock or Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	Acrylic, blue	500	**9.055 500** 1
non sterile	13	0.45	Acrylic, yellow	500	**9.055 502**
non sterile	13	0.80	Acrylic, green	500	**9.055 504**
non sterile	25	0.20	Acrylic, blue	500	**9.055 501**
non sterile	25	0.45	Acrylic, yellow	500	**9.055 503** 2
non sterile	25	0.80	Acrylic, green	500	**7.970 389**
sterile	13	0.20	Acrylic, blue	50	**9.055 510**
sterile	13	0.45	Acrylic, yellow	50	**9.055 512**
sterile	13	0.80	Acrylic, green	50	**6.285 694**
sterile	25	0.20	Acrylic, blue	50	**9.055 511**
sterile	25	0.45	Acrylic, yellow	50	**9.055 513**
sterile	25	0.80	Acrylic, green	50	**6.285 699**
sterile	25	0.20	Acrylic, transparent*	50	**6.285 703**
sterile	25	0.45	Acrylic, transparent*	50	**6.285 704**
sterile	25	0.80	Acrylic, transparent*	50	**6.285 705**

*Luer-Slip output

1

9.055 500

2

9.055 503

LLG Syringe Filter NY, Nylon/Polyamide

This is a rather hydrophilic membrane; it is recommended for filtration of aqueous and organic/aqueous medium polar liquids.
Excellent chemical compatibility with esters, bases and alcohols. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	PP	500	**9.055 520** 3
non sterile	13	0.45	PP	500	**9.055 522**
non sterile	25	0.20	PP	500	**9.055 521**
non sterile	25	0.45	PP	500	**9.055 523**
sterile	25	0.20	Acrylic	50	**6.285 707**
sterile	25	0.45	Acrylic	50	**6.285 708**

3

9.055 520

LLG-Syringe Filter NC, Nitrocellulose

NEW

Hydrophilic membrane features very low adsorption. It is recommended for filtration of aqueous and organic/aqueous liquids. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
sterile	25	0.20	Acrylic	50	**6.285 709**
sterile	25	0.45	Acrylic	50	**6.285 710** 4

4

6.285 710

LLG Syringe Filter PE, Polyethylene

Universal filter membrane for all analytical requirements. For aqueous and aggressive organic solvent filtration.
Wide application in sample preparation, Ion chromatography. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	PP	500	**9.055 540**
non sterile	13	0.50	PP	500	**9.055 542**
non sterile	25	0.20	PP	500	**9.055 541** 5
non sterile	25	0.50	PP	500	**9.055 543**

5

9.055 541

1

9.055 530

LLG Syringe Filter RC, Regenerated cellulose

Hydrophilic membrane features very low adsorption. It is recommended for filtration of aqueous and organic/aqueous liquids.
For filtration of polar and medium polar liquids. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	PP	500	**9.055 530** 1
non sterile	13	0.45	PP	500	**9.055 532**
non sterile	25	0.20	PP	500	**9.055 531**
non sterile	25	0.45	PP	500	**9.055 533**

2

6.255 331

LLG Syringe Filter PTFE, Polytetrafluorethylene

Hydrophobic membrane. Ideal for filtration of non-polar liquids and gases. It is very resistant to various solvents as well as acids and bases. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	PP	500	**7.970 402**
non sterile	13	0.45	PP	500	**7.970 385**
non sterile	25	0.20	PP	500	**9.055 535**
non sterile	25	0.45	PP	500	**6.255 331** 2

3

7.970 213

LLG Syringe Filter PES, Polyethersulfone

Hydrophobic membrane. Ideal for filtration of non-polar liquids and gases.
It is very resistant to various solvents as well as acids and bases. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	PP	500	**9.055 524**
non sterile	13	0.45	PP	500	**9.055 526**
non sterile	25	0.20	PP	500	**9.055 525**
non sterile	25	0.45	PP	500	**7.970 213** 3
sterile	13	0.20	Acrylic	50	**6.285 695**
sterile	13	0.45	Acrylic	50	**6.285 696**
sterile	25	0.20	Acrylic	50	**6.285 700**
sterile	25	0.45	Acrylic	50	**6.285 701**
sterile	25	0.80	Acrylic	50	**6.285 706**

4

7.970 286

LLG Syringe Filter PVDF, Polyvinylidene fluoride

Hydrophilic membrane for aqueous polar and light unpolar solutions. Very low protein binding High flow rates ideal for use with biological macromolecules, water soluble oligomers and polymers. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	13	0.20	PP	500	**7.970 258**
non sterile	13	0.45	PP	500	**9.055 534**
non sterile	25	0.20	PP	500	**7.970 387**
non sterile	25	0.45	PP	500	**7.970 286** 4
sterile	13	0.20	Acrylic	50	**6.285 697**
sterile	13	0.45	Acrylic	50	**6.285 698**
sterile	25	0.20	Acrylic	50	**6.258 299**
sterile	25	0.45	Acrylic	50	**6.285 702**

5

9.055 552

LLG Syringe Filter GF, Glass-fibre

Hydrophilic membrane suitable for pre-filtration. They can be used for solutions with high particulate loads or for highly viscous solutions (e.g. soil samples, fermentation broths) either alone or in combination with other filters. With Luer-Lock input and Luer-Slip output.

Type	Filter diam. mm	Pore size µm	Housing	PK	Cat. No.
non sterile	25	0.70	PP	500	**9.055 550**
non sterile	25	1.00	PP	500	**9.055 551**
non sterile	25	1.20	PP	500	**9.055 552** 5
non sterile	25	3.10	PP	500	**9.055 553**

E & OE.