

Food and beverage quality testing

Sample preparation that is accurate, reliable, and fast.



Quality, consistency and safety

Cytiva is committed to quality. Our Whatman™ brand products are manufactured from high-purity raw materials, and our factories all operate to the latest version of ISO 9001 standards. Our filter selection recommendations are built on the combination of expertise in modern methods and almost 300 years of history in the paper and membrane filtration business.

Cytiva's Whatman™ filtration products bring efficiency and accuracy to food and beverage testing, standardizing and streamlining lab workflows and reducing the number of filtration devices required, delivering reliable results to assure consumer product quality, consistency and safety.

Select your filter online at
[cytiva.com/solutions/lab-filtration/whatman-filter-selector](https://www.cytiva.com/solutions/lab-filtration/whatman-filter-selector)



Contents

Food

Fat and protein analysis

Kjeldahl weighing boats	pg 10
Extraction thimbles	pg 12

Gravimetric analysis

Quantitative filter papers	pg 9
----------------------------	------

Trace element analysis

Nitrogen using Kjeldahl method	pg 10
Phosphorous using colorimetry	pg 10
Trace elements using spectrometry	pg 10

Moisture testing

Glass fiber papers	pg 16
--------------------	-------

Beverages

Degassing and clarification

Qualitative filter papers	pg 9
Membrane filters	pg 13

Malic acid measurement

1Chr chromatography papers	pg 11
----------------------------	-------

Microbiology

Analytical funnels and monitors	pg 13
Sterile membranes	pg 13

Filterability testing

Membrane filters	pg 15
Syringe filters	pg 18

General sample preparation

Syringe filters, syringeless filters, mobile phase filtrations	pg 18
---	-------

Syringe filter reference

Syringe filter technical data	pg 43
-------------------------------	-------

Laboratory essentials

General laboratory accessories	pg 344
--------------------------------	--------

Chemical compatibility

Chemical compatibility of membranes and housings	pg 47
---	-------

Cellulose filter papers and products

Key application: clarification and solids retention

Various test methods require that liquid components of a solution be separated from suspended solids prior to analysis. Cytiva offers a wide choice of cellulose filter papers with different flow rates, loading capacities, and chemical resistances to support these applications.

Key application: clarifying sugar solution

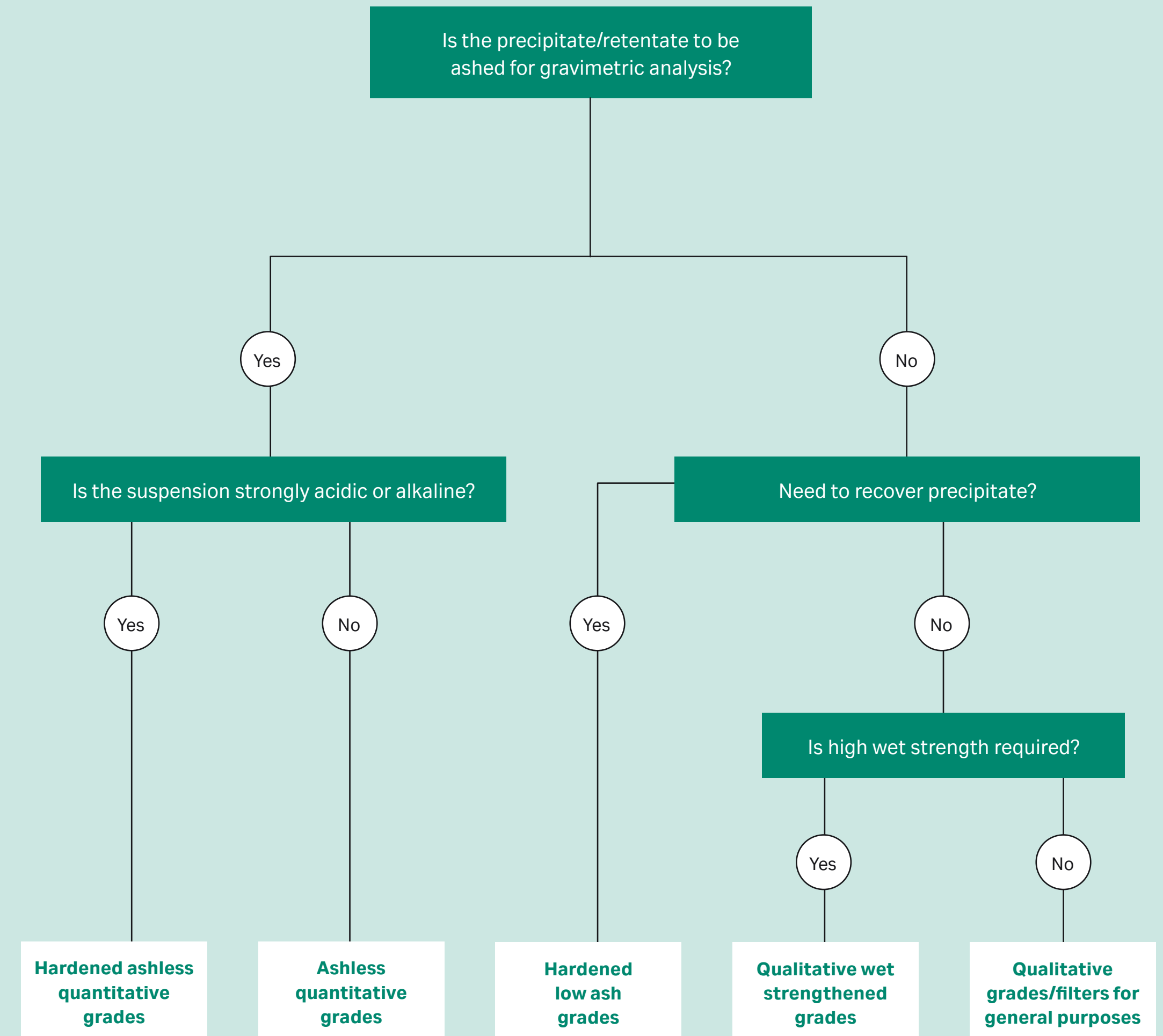
Whatman™ Grade 5 qualitative filter papers have been shown to support ICUMSA methods GS 1/3-7 and GS 2/3-18 for color (filtrate clarity) and turbidity.

Key application: degassing carbonated beverages

Gas bubbles can interfere with accurate colorimetric analysis. Whatman™ Grade 2V cellulose paper has been shown to remove over 77% of CO₂ from a filtered sample. This filter also comes pre-pleated to save setup time.



Qualitative filter paper



Technical characteristics of standard and wet strength qualitative filter papers[‡]

Grade	Nominal thickness (µm)	Nominal basis weight (g/m ²)	Typical water flow rate (normalized for 9 cm diameter) [†]	Typical particle retention in liquid at 98% efficiency (µm)	Pre-pleated grade
Standard qualitative filter papers					
1	180	87	57 mL/min	11	-
2	190	97	38 mL/min	8	Grade 2V
3	390	185	28 mL/min	6	-
4	210	92	247 mL/min	25	-
5	200	100	5 mL/min	2.5	Grade 5V
6	180	105	22 mL/min	3	-
591	350	161	+	7-12	-
595	150	68	+	4-7	Grade 595 ½
597	180	85	+	4-7	Grade 597 ½
597L	180	82	+	7	-
597 Plus	190	85	+	4-7	-
598	320	140	+	8-10	Grade 598 ½
602 h	160	84	+	< 2	Grade 602 h ½
602 eh	150	85	+	2	Grade 602 eh ½
Wet strengthened qualitative filter papers					
91	205	65	274 mL/min	10	-
93	145	65	194 mL/min	10	-
113	420	125	774 mL/min	> 15	Grade 113V
114	190	75	333 mL/min	25	Grade 114V
1573	170	88	+	12-25	Grade 1573 ½
1574	160	90	+	7-12	Grade 1574 ½
1575	140	92	+	< 2	-

[†] Measured under gravity for comparative purposes

[‡] For a full list of products visit cytiva.com

+ Not measured under these conditions

Ordering information†

Diam. (mm)/ Grade	1	2	3	4	5	6	595	597	597 Plus	598	602 h
Qualitative filters – flat, 100 per pack											
42.5	1001-042	1002-042	–	1004-042	1005-042	1006-042	–	–	–	–	–
47	1001-047	1002-047	–	1004-047	1005-047	–	–	–	–	–	–
55	1001-055	1002-055	1003-055	1004-055	1005-055	–	–	1031-1807	9894-9552	–	–
70	1001-070	1002-070	1003-070	1004-070	1005-070	1006-070	–	1031-1808	9894-10102	–	–
90x	1001-090	1002-090	1003-090	1004-090	1005-090	1006-090	–	1031-1809	9894-9329	1031-2209	1031-2609
110	1001-110	1002-110	1003-110	1004-110	1005-110	1006-110	1031-1610	1031-1810	9894-10103	–	–
125	1001-125	1002-125	1003-125	1004-125	1005-125	1006-125	1031-1611	1031-1811	9894-10104	–	1031-2611
150	1001-150	1002-150	1003-150	1004-150	1005-150	1006-150	1031-1612	1031-1812	9894-9613	–	1031-2612
185	1001-185	1002-185	1003-185	1004-185	1005-185	1006-185	1031-6114	1031-1814	9894-10105	–	1031-2614
240	1001-240	1002-240	1003-240	1004-240	1005-240	1006-240	–	1031-1820	9894-10106	–	1031-2620
270	1001-270	1002-270	–	1004-270	–	–	–	–	–	–	–
320	1001-320	1002-320	1003-320	1004-320	1005-320	–	–	1031-1822	9894-10107	–	–

Diam. (mm)/ Grade	93	113	114	1573	1575
Qualitative filters and filters for general purposes – pre-pleated, 100 per pack					
90	–	1113-090	1114-090	–	–
110	1093-110	1113-110	–	–	–
125	1093-125	1113-125	1114-125	–	–
150	–	1113-150	1114-150	1031-4712	1031-4915
185	–	1113-185	1114-185	1031-4714	1031-4914
240	–	1113-240	1114-240	1031-4720	–

† For a full list of products visit cytiva.com

Ordering information continuation[†]

Diam. (mm)/ Grade	2V	5V	595 ½	597 ½	598 ½	602 h ½	602 eh ½	113V	114V	1573 ½	1574 ½
Qualitative filters and filters for general purposes — pre-pleated, 100 per pack											
110	–	1205-110	10311643	10311843	–	–	–	–	–	–	10314843
125	1202-125	–	10311644	10311844	–	10312644	10312544	1213-125	1214-125	10314744	10314844
150	1202-150	–	10311645	10311845	–	10312645	10312545	1213-150	1214-150	10314745	–
185	1202-185	1205-185	10311647	10311847	10313947	10312647	–	1213-185	1214-185	10314747	–
240	1202-240	–	10311651	10311851	10313951	10312651	–	1213-240	1214-240	10314751	–
270	1202-270	–	10311652	10311852	–	–	–	1213-270	–	10314752	–
320	1202-320	–	10311653	10311853	10313953	–	–	1213-320	1214-320	10314753	–
385	1202-385	–	10311654	10311854	–	–	–	–	–	–	–

[†] For a full list of products visit cytiva.com



Technical characteristics of general purpose and application specific filter papers

Grade	Nominal thickness (µm)	Nominal basis weight (g/m ²)	Filtration speed (approx) Herzberg (s)	Typical particle retention in liquid at 98% efficiency (µm)	Pre-pleated grade
General purpose filter papers					
520a	300	90	17.5	15-18	Grade 520a ½
0858	170	75	55	7-12	Grade 0858 ½
0860 ½	170	88	60	12	Grade 0860 ½
Shark Skin™	170	44	77.5	8-12	–
Application specific filter papers					
0048	0.86	130	–	–	–
287 ½	360	154	330	–	Grade 287 ½
2555 ½	170	75	55	12	Grade 2555 ½
3459	–	75	55	–	–

Ordering information†

Diam.(mm)/Grade	520a 1/2	0858 1/2	860.5	Shark Skin™	0048	287 ½	2555 ½	3459
General purpose and application specific filts – flat and pre-pleated, 100 per pack								
32	–	–	–	–	10348903	–	–	–
90	–	–	–	10347509	–	–	–	–
110	–	–	–	10347510	–	–	–	–
125	–	–	–	10347511	–	10310244 [†]	–	–
150	–	10334345	–	10347513	–	10310245 [†]	–	–
185	–	10334347	10334547	10347512	–	10310247 [†]	10313947	–
230	–	–	–	–	–	–	10313951	10316619
240	10331451	10334351	10334551	10347519	–	–	10313953	–
270	–	10334352	–	10347521	–	–	–	–
320	–	10334353	10334553	10347530	–	–	–	–
500	10331456	–	–	10347525	–	–	–	–

† For a full list of products visit cytiva.com

Technical characteristics of ashless quantitative filter papers

Grade	Nominal thickness (µm)	Nominal basis weight (g/m ²)	Nominal ash content*	Typical water flow rate (normalized for 9 cm diameter) [†]	Typical particle retention in liquid at 98% efficiency (µm)	Pre-pleated grade
40	210	95	0.007%	25 mL/min	8	–
41	215	85	0.007%	254 mL/min	20	–
42	200	100	0.007%	5 mL/min	2.5	–
43	220	95	0.007%	62 mL/min	16	–
44	176	80	0.007%	11 mL/min	3	–
589/1	190	80	0.01%	–	12-25	Grade 589/1 ½
589/2	180	85	0.01%	–	4-12	Grade 589/2 ½
589/3	160	84	0.01%	–	2	–

* Ash content is determined by ignition of the cellulose filter at 900°C in air

[†] Measured under gravity for comparative purposes

Diam (mm)/Grade	589/1 ½	589/2 ½
Ashless quantitative filters – pre-pleated, 100 per pack		
110	–	10300143
150	10300045	10300145

Hardened ashless and low ash grades are also available upon request.



Whatman™ Grade 40 and 41 ashless filter paper



Ordering information[†]

Diam (mm)/Grade	40	41	42	43	44	589/1	589/2	589/3
Ashless quantitative filters – flat, 100 per pack								
42.5	1440-042	1441-042	1442-042	–	–	–	–	–
47	1440-047	1441-047	1442-047	–	–	–	–	–
55	1440-055	1441-055	1442-055	–	–	–	10300107	–
70	1440-070	1441-070	1442-070	–	1444-070	–	10300108	–
90	1440-090	1441-090	1442-090	1443-090	1444-090	10300009	10300109	–
110	1440-110	1441-110	1442-110	1443-110	1444-110	10300010	10300110	10300210
125	1440-125	1441-125	1442-125	1443-125	1444-125	10300011	10300111	10300211
150	1440-150	1441-150	1442-150	1443-150	1444-150	10300012	10300112	10300212
185	1440-185	1441-185	1442-185	1443-185	1444-185	10300014	10300114	10300214
240	1440-240	1441-240	1442-240	–	1444-240	–	10300120	–
320	1440-320	1441-320	1442-320	–	–	–	–	–

[†] For a full list of products visit cytiva.com

Nitrogen, phosphorous, and lipid analysis

Key application: nitrogen analysis

Nitrogen content analysis is typically done with Kjeldahl techniques, which involve the sampling of an exact amount of sample before transfer to a digestion tube. Low nitrogen content weighing paper makes the sample transfer easy and quick without loss of material and with minimal interference with the end result. The sample might need to be filtered through a Whatman™ brand qualitative filter paper prior to analysis.

Key application

What are you testing for?	Method	Product
Nitrogen	Kjeldahl analysis	Weighing boats, weighing paper
Trace elements	Various	Glass or cellulose filter paper
Phosphorus	Colorimetry	Grade 512 ½ pre-folded low phosphate filter paper
Lipids	Soxhlet extraction	Cellulose thimbles

Ordering information*

For what use?	Product	Quantity	Product code
Kjeldahl analysis	Grade 609 weighing boats	100/pack	10313032
Kjeldahl analysis	Grade B-2 weighing paper, 4 × 4 in	500/pack	10347672
Phosphorus analysis	Grade 512 ½	100/pack	10310643

* For a full list of products visit cytiva.com



Low nitrogen content weighing boats

Key application: trace element extraction

Most trace element tests are based on extracting a sample and measuring the concentration of trace elements in the liquid phase. Extraction methods can vary between laboratories. The sample then generally needs to be filtered through a qualitative filter paper (p. 4) or glass fiber filter (p. 14) to make sure it will not clog nebulizers or interfere with injection into the analysis instrument. If digested with aqua regia, the sample might be filtered through an ashless filter paper. If syringe filters are used as an additional sample preparation step, please see page 18.

Key application: phosphorus analysis by colorimetry

To determine the phosphorus content, the sample is extracted with a chemical solution and the phosphorus content in the extract is measured by colorimetry. Filtration of the extract through a qualitative filter paper is generally needed before analysis, please see page 8. If an automated method is used for determining phosphorus concentration, acid-resistant filter paper might be needed.

Key application: acid testing

Determination of acid presence and concentration in beverages such as wine can be performed by applying a sample of the liquid to chromatography paper. Allow the paper to separate acidic content, and then dry the paper. The acids that are present in the sample can then be determined by the spots on the paper.

Ordering information*

Product	Quantity/pack	Product code
1 Chr sheets, 20 × 20 cm	100	3001-861
1 Chr roll, 2 cm × 100 m	1	3001-614

* For a full list of products visit cytiva.com



Key application: Soxhlet extraction for lipid analysis

Food samples can be prepared for lipid analysis using Soxhlet extraction. Extraction thimbles are widely used for Soxhlet techniques. After extraction samples can be re-filtered with a 0.45 µm filter to remove small particles in order to protect your analytical instrument. Standard extraction thimbles have a wall thickness of 1–1.5 mm. Double-thickness thimbles have a wall thickness of approximately 2 mm for applications that require higher retention, increased wet or dry strength, or increased rigidity. Measurements can be matched to specific Soxhlet extractor systems.



Extraction thimbles in Soxhlet extraction apparatus

Ordering information*

High performance cellulose extraction thimbles

Dimensions (mm) [†]	Wall thickness	
	1.0 mm	2.0 mm
10 × 50	2800-105	-
16 × 60	-	2810-166
18 × 55	2800-185	-
19 × 90	2800-199	-
22 × 65	2800-226	-
22 × 80	2800-228	2810-228
25 × 80	2800-258	2810-258
25 × 90	2800-259	-
25 × 100	2800-250	-
26 × 60	2800-266**	2810-266
26 × 100	2800-260	-
28 × 80	2800-288	-
28 × 100	2800-280	-
28 × 120	2800-282	-
30 × 80	2800-308	-
30 × 100	2800-300	-
33 × 80	2800-338	2810-338
33 × 94	2800-339	2810-339
33 × 100	2800-330	-
33 × 118	2800-331	-
37 × 130	2800-373	-
41 × 123	2800-412	-
43 × 123	2800-432	2810-432
60 × 180	2800-608 [§]	-
90 × 200	-	2810-902

* Internal diameter and external length

** Fits Soxtec™ extractor

§ Wall thickness: 1.5 mm

† Wall thickness: 2.5 mm

• Wall thickness: 3.0 mm

Standard cellulose thimbles

Dimensions (mm) [†]	Wall thickness	
	1.5 mm	2.0 mm
22 × 60	-	10350306
22 × 80	10350211	-
25 × 60	10350215	-
25 × 80	10350217	-
25 × 100	10350219	-
26 × 60	10350220	-
27 × 80	10350223	-
28 × 60	10350225	-
28 × 80	10350226	-
28 × 100	10350227	-
30 × 80	10350234	-
30 × 100	10350236	-
33 × 60	10350238	-
33 × 80	10350240	-
33 × 90	10350241	-
33 × 94	10350242	-
33 × 100	10350243	-
33 × 118	10350245	-
33 × 130	10350247	-
33 × 205	10350250	-
34 × 130	10350252	-
35 × 150	10350255	-
40 × 85	-	10350255
41 × 123	-	10350265
44 × 230	-	10350275
48 × 145	-	10350273
48 × 200	-	10350274
75 × 250	-	10350287 [†]
80 × 250	-	10350324 [†]

Filtration membranes

Key application: microbial detection and enumeration

In addition to the immediate risk to public health, microbial contamination of food and beverages impacts manufacturers through costs of spoiled product, damage to reputation, and loss of customer confidence. Membrane filtration (MF) technique originated as a methodology for water quality testing and was quickly recognized as a reliable and adaptable method for food and beverage testing. If the sample can be rinsed or dissolved such that the resulting solution has little to no remaining solids, then it can be examined for microbial contamination by filtering through a membrane filter. MF technique can be used for detection and enumeration of a wide range of organisms with the benefits of:

- Concentration of target organisms
- A wide choice of membranes
- Separation of target from inhibitory substances
- Use of rinse buffers to further neutralize inhibition



Workflow

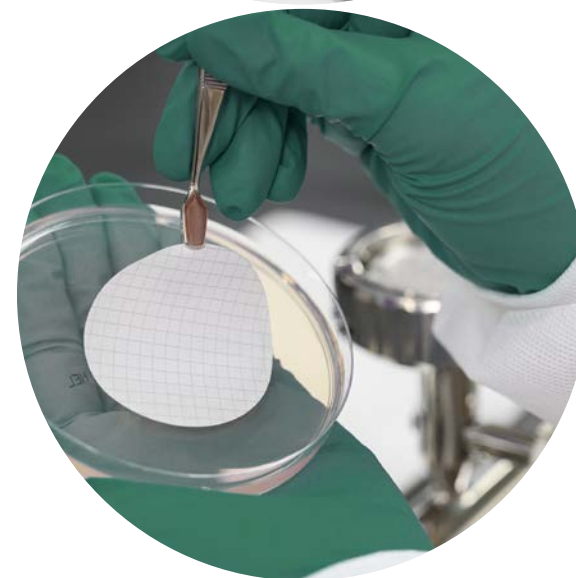
1. Secure membrane and funnel



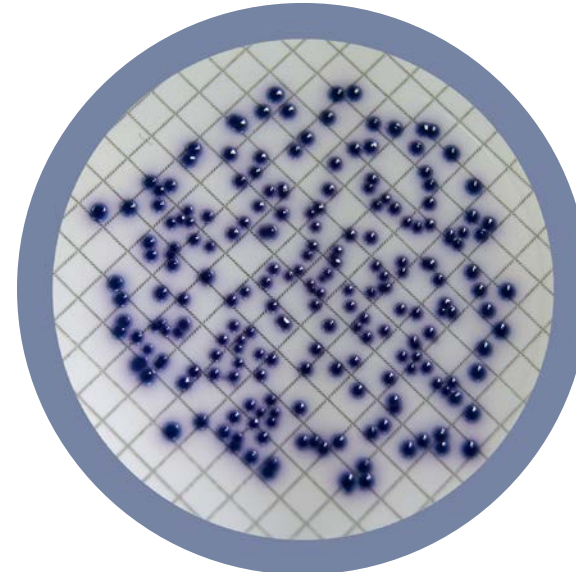
2. Filter and rinse sample



3. Plate and Incubate



1. Count and record



What is your application?

Typically used

What products should you choose?

Coliforms <i>E. coli</i> <i>Enterobacter sp.</i> <i>Enterococcus sp.</i> <i>Pseudomonas sp.</i> total aerobic microbial counts	0.45 µm, white Additional options selected based on growth media, colony color and organism size: 0.2 µm, black or green	ME 25/21 (mce) 0.45 µm ME 24/21 (mce) 0.2 µm
<i>Legionella sp.</i>	0.45 µm, black 0.2 µm polycarbonate track-etched (pcte)	ME 25/31 (mce) 0.45 µm Nuclepore™/Cyclopore™ polycarbonate membranes, 0.2 µm
Direct cell count/staining	pcte membrane, white or black	Nuclepore™/Cyclopore™ polycarbonate membranes, white or black
Beverage monitoring yeast and mold	0.45 µm, white or black Additional options selected based on growth medium, colony color and organism size: 0.8, 1.2 µm, green	ME (mce) membrane filters
Purified water system	0.2 µm, 0.45 µm, white	ME (mce) membrane filters
eDNA	0.45 µm pcte	Nuclepore™/Cyclopore™ polycarbonate membranes 0.45 µm

Ordering information*

MBS I

Catalog number	Product	Description	Quantity/pack
10445890	AS220	2-place vacuum filtration manifold	1
10445871	Dispenser for funnels	Dispenser for 100 mL and 350 mL funnels	1
10445861	Funnel—100 mL	Plastic funnel of PP, autoclavable	20
10445866	Funnel—350 mL	Plastic funnel of PP, autoclavable	20
10445868	Autoclave bags	Spare part for 10445861 and 10445866	20
10477103	eButler membrane dispenser	eButler membrane dispenser	1

* For a full list of products visit cytiva.com

Key application: filterability testing

Filterability testing is used to determine bottling readiness of wine. Non-sterile 0.45 µm membrane filters are used with positive or negative pressure to filter several liters of wine while recording fluid flow rate.

Ordering information*

Membrane filters

Membrane material/type*	Pore size (µm)	Color	Sterile	Membrane-Butler compatible	Product code			Quantity
					25 mm	47 mm	50 mm	
Diameter								
Cellulose mixed ester/ME type	0.2	white/black grid	yes	no	–	10406970	10406972	100/pack
	0.2	white/black grid	yes	yes	–	10408712	10408714	400/pack
	0.45	white/black grid	yes	no	–	10406870	10406872	100/pack
	0.45	white/black grid	yes	yes	–	10407312	10407314	400/pack
	0.45	black/white grid	yes	yes	–	10409770	–	100/pack
	0.45	black/white grid	yes	yes	–	10407332	–	400/pack
Cellulose nitrate/Microplus	0.45	white/black grid	yes	no	–	10407713	10407714	100/pack
	0.45	white/black grid	yes	yes	–	10407112	10407114	400/pack
	0.45	black/white grid	yes	no	–	–	10407734	100/pack
	0.45	black/white grid	yes	yes	–	10407132	–	400/pack
Polycarbonate/Nuclepore™	0.2	white	no	no	10417006	10417012	10417014	100/pack
	0.4	white	no	no	10417106	10417112	10417114	100/pack
	0.8	black	no	no	–	–	–	100/pack
Polycarbonate/Cyclopore™	0.2	white	no	no	10417606	10417612	–	100/pack
	0.4	white	no	no	10417706	10417712	–	100/pack



eButler membrane dispenser



Microplus membrane filters

Glass fiber filters

Key application: moisture and solids analysis

The processes for measuring moisture in food or solids in water are quite similar. In both cases a sample is placed on a filter and weighed. It is then heated to evaporate any water present and weighed again. The difference between the two measurements is the moisture content, and the final weight is the solids content.

What are you testing for?	Product	Characteristics and benefits
Moisture content of foodstuffs	Moisture test paper	<ul style="list-style-type: none"> 90 mm borosilicate glass circle Designed for use with common moisture analysis methods

Ordering information

Description	Quantity/pack	Product code
Moisture test paper, 90 mm	100	5401-090E

* For a full list of products visit cytiva.com

Key application: sample clarification

934-AH™ glass microfiber filters are designed for fast and effective clarification of a large amount of aqueous solutions gravimetrically as specified in ASBC method, Wort 9B. GF/C™ or other glass fiber filters can also be used.

Key application: determination of total aflatoxins in olive oil, peanut oil and sesame oil

Association of Official Analytical Chemists (AOAC) official method 2013.05 recommends 934-AH™ or GF/B circles, 90 mm for the determination of total aflatoxins in olive oil, peanut oil and sesame oil.



Technical specifications

Glass microfiber filters

Grade	Minimum retention efficiency in air (% at 0.3 µm)	Typical retention efficiency in air (% at 0.3 µm)	Typical particle retention in liquid (µm) ¹	Nominal air flow (s/100 mL /in ²)	Nominal thickness (µm)	Nominal basis weight (g/m ²)	Maximum recommended temperature (°C)	Typical water flow rate (mL/min) ²
GF/A	≥ 99.85	≥ 99.99	1.6	4.3	260	53	550	143
GF/B	–	–	1.0	12	675	143	550	81
GF/C™	–	–	1.2	6.7	260	53	550	105
GF/D	–	–	2.7	2.6	675	121	550	681
GF/F	–	–	0.7	19	420	75	550	41
934-AH™	–	–	1.5	3.7	435	64	550	341

¹ Particle retention rating at 98% efficiency

² Normalized for 9 cm diameter. Measured under gravity for comparative purposes

Ordering information†

Binder-free glass microfiber grades, 100 per pack

Dimensions (mm)	Catalog number					
	Grade GF/A	Grade GF/B	Grade GF/C™	Grade GF/D	Grade GF/F	Grade 934-AH™
Filter circles						
25	1820-025	1821-025	1822-025	1823-025	1825-025	1827-025
32	18208296*	–	1822-320	–	–	1827-032
37	1820-037	1821-037	1822-037	–	1825-037	1827-037
42.5	1820-042	1821-042	1822-042	1823-042	1825-042	1827-042
47	1820-047	1821-047	1822-047	1823-047	1825-047	1827-047
55	1820-055	1821-055	1822-055	1823-055	1825-055	1827-055
70	1820-070	1821-070	1822-070	1823-070	1825-070	1827-070
90	1820-090	1821-0901	1822-090	1823-0901	1825-0901	1827-090
110	1820-110	1821-1101	1822-110	1823-1101	1825-1101	1827-110
125	1820-125	1821-1251	1822-125	1823-1251	1825-1251	1827-125
150	1820-150	1821-1501	1822-150	1823-1501	1825-1501	1827-150
185	–	1821-1851	1822-185	–	–	1827-185

† For a full list of products visit cytiva.com

* Filter in holder for personal air samplers

Filtration devices

Key application: chemical analysis

Chemical analyses are commonly performed using analytic instrumentation. Filtration of samples prior to analysis is good practice in order to remove unwanted particles from the analysis and to protect delicate instrumentation from potentially damaging compounds. Key to good sample preparation is selection of an appropriate filter membrane and device. General guidelines on membrane compatibility can be found in the following table. Selection of a broadly compatible membranes such as regenerated cellulose (RC) and hydrophilic polytetrafluoroethylene (H-PTFE) are recommended.

Characteristics of common membranes

Filter media	ANP	CA	CN	NYL	PP	DpPP	PES	PTFE	H-PTFE	PVDF	RC	GMF
Hydrophilic N/A	•	•	•	•	○	○	•	○	•	•	•	N/A
Slightly Hydrophobic N/A	○	○	○	○	•	•	○	○	○	○	○	N/A
Hydrophobic N/A	○	○	○	○	○	○	○	•	○	○	○	N/A
Sample type	Aqueous	•	•	•	•	•	•	–	•	•	•	•
	Organic	•	–	–	•	•	•	–	•	•	•	•
Low protein binding typically	•	•	–	–	–	–	–	•	•	•	•	–
Clean/low extractables	Low	–	–	–	–	–	Low	Low	Low	–	Low	–
Pore size (µm)												
0.02	•	–	–	–	–	–	–	–	–	–	–	–
0.1	•	–	–	–	–	–	–	•	–	–	–	–
0.2	•	•	–	•	•	–	•	•	•	•	•	–
0.45	–	•	–	•	•	•	•	•	•	•	•	•
0.7	–	–	–	–	–	–	–	–	–	–	–	•
0.8	–	•	–	–	–	–	–	–	–	–	–	–
1	–	–	–	–	–	–	•	•	–	–	–	•
1.2	–	•	–	–	–	–	–	–	–	–	–	•
1.5	–	–	–	–	–	–	–	–	–	–	–	–
1.6	–	–	–	–	–	–	–	–	–	–	–	•
2	–	–	–	–	–	–	–	–	–	–	–	–
2.7	–	–	–	–	–	–	–	–	–	–	–	•
5	–	–	–	–	–	–	–	–	–	–	–	–

* ANP = Anopore™; CA = Cellulose Acetate; CN = Cellulose Nitrate; NYL = Nylon; PP = Polypropylene; DpPP = Polypropylene depth filter; PES = Polyethersulfone; PTFE = Polytetrafluoroethylene; H-PTFE = Hydrophilic polytetrafluoroethylene; PVDF = Polyvinylidene difluoride; RC = Regenerated Cellulose; GMF = Glass microfibre

Mobile phase filtration

Whatman™ regenerated cellulose Grade 55 (RC55) and GV 050/2 vacuum filtration unit for solvent filtration

Use the same material for mobile phase filtration and sample filtration to:

- Reduce variation of analysis
- Reduce rate of column clogging
- Enhance lifetime of column

If in-line degassing is required, consider the Whatman™ In-line filter/degasser.

Choose from two membrane options:

- Nylon — when mobile phase is > 20% aqueous
- Polypropylene — for non-aqueous solvents

Ordering information

Description	Quantity/pack	Product code
Regenerated Cellulose circles (RC55), 0.45 µm, 47 mm	100	10410212
Regenerated Cellulose circles (RC55), 0.45 µm, 50 mm	100	10410214
GV 050/2, glass frit filter, hose coupling connection, Erlenmeyer flask 1000 mL (NS45) [†]	1	10442200
In-line filter/degasser, polypropylene (0.8 mm–04 mm tubing)	1	6725-5002
In-line filter/degasser, polypropylene (1/8" tubing)	1	6725-5002A
In-line filter/degasser, nylon (0.8 mm–04 mm tubing)	1	6726-5002
In-line filter/degasser, nylon (1/8" tubing)	1	6726-5002A

[†] Supplied with silicone cap with air inlet



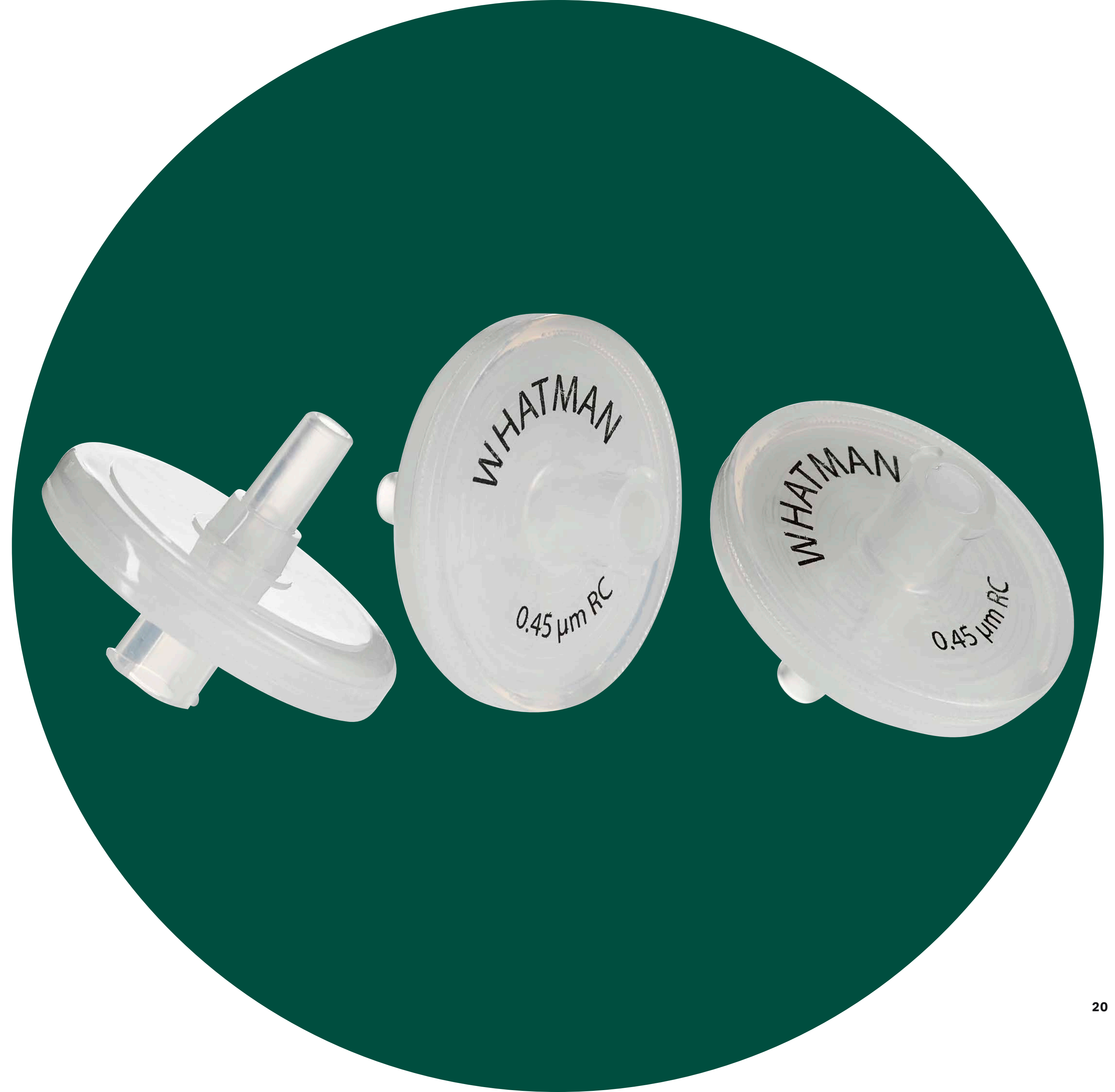
Syringe filters for preventative care

Filtration of your samples is important as a preventive maintenance step for HPLC or UHPLC analysis. Keep unwanted particulate matter from entering the injector to increase column life, shorten run time, and optimize peak shape.

Whatman™ brand Puradisc™ syringe filters

The workhorse of the lab, high performance syringe filters deliver premium quality and reliability.

- Choice of filter sizes (4, 13, 25 or 30 mm) to minimize sample loss
- Available in 11 membrane types to support a variety of applications
- Pigment-free polypropylene (polycarbonate for Puradisc™ 30 mm and Puradisc™ Aqua)



Typical data

Puradisc™ syringe filters

	Puradisc™ 4	Puradisc™ 13	Puradisc™ 25	Puradisc™ 30
Housing	Polypropylene	Polypropylene	Polypropylene	Polycarbonate
Filtration area	0.2 cm ²	1.3 cm ²	4.2 cm ²	5.7 cm ²
Maximum pressure	75 psi (5.2 bar)	75 psi (5.2 bar)	75 psi (5.2 bar)	100 psi (6.9 bar)
Volume hold up with air purge	< 10 µL	< 25 µL	< 100 µL	< 50 µL
Dimensions	10.1 × 23.5 mm	16.3 × 19.8 mm	22.9 × 28.4 mm	26 × 34 mm
Weight	0.55 g	0.95 g	2.7 g	4.7 g
Volume throughput	Up to 2 mL	Up to 10 mL	Up to 100 mL	Up to 100 mL
Inlet connection	Female Luer lock	Female Luer lock	Female Luer lock	Female Luer lock
Outlet connection	Male Luer	Male Luer	Male Luer	Male Luer
Sterilization	Autoclave at 121°C (131°C max)	Autoclave at 121°C (131°C max)	Autoclave at 121°C (131°C max)	Autoclave at 121°C (131°C max)

Ordering information

Puradisc™ 4 mm syringe filters[‡]

Membrane [†]	Nylon	PVDF	PTFE	Quantity/pack
Pore size (µm)				
Non-sterile with tube tip				
0.2	–	6777-0402	–	50
0.45	–	6777-0404	–	50
Sterile without tube tip				
0.2	6786-0402	6791-0402	–	50
Non-sterile without tube tip				
0.2	6789-0402	6779-0402	6784-0402	100
0.2	6790-0402	6792-0402	6783-0402	500
0.45	6789-0404	6779-0404	6784-0404	100
0.45	6790-0404	6792-0404	6783-0404	500

[†] PTFE = Polytetrafluoroethylene; PVDF = Polyvinylidene difluoride

[‡] For a full list of products visit cytiva.com

Puradisc™ 13 mm syringe filters (non-sterile)

Membrane†	CA	Nylon	PES	PVDF	PPw	PTFE	GMF	RC	H-PTFE	Quantity/pack
Pore size (µm)										
With tube tip										
0.2	-	-	-	6777-1302	-	6775-1302	-	-	-	50
0.2	-	-	-	-	-	10463703	-	-	-	100
0.45	-	-	-	6777-1304	-	6775-1304	-	-	-	50
0.45	-	-	-	-	-	10463713	-	-	-	100
Without tube tip										
0.1	-	6789-1301	-	-	-	6784-1301	-	-	-	100
0.2	-	6789-1302	6782-1302	6779-1302	6788-1302	6784-1302	-	6756-1302	6772-1302	100
0.2	-	6790-1302	-	6792-1302	6785-1302	6783-1302	-	6767-1302	6773-1302	500
0.2	-	6768-1302	-	6465-1302	-	6766-1302	-	6758-1302	6774-1302	2000
0.45	6771-1304	6789-1304	6782-1304	6779-1304	6788-1304	6784-1304	-	6756-1304	6772-1304	100
0.45	-	6790-1304	6781-1304	6792-1304	6785-1304	6783-1304	6818-1304	6757-1304	6773-1304	500
0.45	-	6768-1304	-	6765-1304	-	6766-1304	-	6758-1304	6774-1304	2000
1.0	-	-	-	-	-	6784-1310	-	-	-	100
5.0	-	-	-	-	-	6784-1350	-	-	-	100
GF/F 0.7*	-	-	-	-	-	-	6825-1307	-	-	100
GF/B 1.0*	-	-	-	-	-	-	6821-1310	-	-	100
GF/C™ 1.2*	-	-	-	-	-	-	6822-1312	-	-	100
GF/A 1.6*	-	-	-	-	-	-	6820-1316	-	-	100
GF/A 1.6	-	-	-	-	-	-	6806-1316	-	-	500
GF/D 2.7*	-	-	-	-	-	-	6823-1327	-	-	100
934-AH™ 1.5*	-	-	-	-	-	-	6827-1315	-	-	100

* Particle Retention Rating

† CA = Cellulose acetate; GMF = Glass microfiber filter; PES = Polyethersulfone; PP = Polypropylene; PTFE = Polytetrafluoroethylene; PVDF = Polyvinylidene difluoride; RC = Regenerated cellulose; H-PTFE = Hydrophilic PTFE

Puradisc™ 13 mm syringe filter (sterile)

Membrane [†]	PVDF	PES	RC	Quantity/pack
Pore size (µm)				
With tube tip				
0.2	6791-1302	6780-1302	10462940	50
0.45	6791-1304	6780-1304	-	50
Without tube tip				
0.2	6778-1302	-	10462945	50

[†] PES = Polyethersulfone; PVDF = Polyvinylidene difluoride; RC = Regenerated cellulose



Puradisc™ 25 mm syringe filters

Membrane†	Nylon	PES	PVDF	PP	PTFE	H-PTFE	GMF	DpPP	RC	Quantity/pack
Pore size (µm)/ Grade										
Sterile										
0.2	-	6780-2502	-	-	-	-	-	-	-	50
0.2	-	6794-2512	-	-	-	-	-	-	-	1000
0.45	-	6780-2504	-	-	-	-	-	-	-	50
0.45	-	6794-2514	-	-	-	-	-	-	-	1000
1.0	-	6780-2510	-	-	-	-	-	-	-	50
Non-sterile										
0.1	-	-	-	-	6784-2501	-	-	-	-	50
0.1	-	-	-	-	6798-2501	-	-	-	-	1000
0.2	6750-2502	-	6746-2502	6786-2502	6784-2502	6772-2502	-	-	6756-2502	50
0.2	6751-2502	6781-2502	6747-2502	6788-2502	6785-2502	6773-2502	-	-	6757-2502	200
0.2	6753-2502	6794-2502	-	-	6798-2502	6774-2502	-	-	6758-2502	1000
0.45	6750-2504	-	6746-2504	-	6784-2504	6772-2504	-	6786-2504	6756-2504	50
0.45	6751-2504	6781-2504	6747-2504	-	6785-2504	6773-2504	-	6788-2504	6757-2504	200
0.45	6752-2504	-	-	-	-	-	-	-	-	500
0.45	6753-2504	6794-2504	6749-2504	-	6798-2504	6774-2504	-	6790-2504	6758-2504	1000
0.7 GF/F*	-	-	-	-	-	-	6825-2517	-	-	50
0.7 GF/F*	-	-	-	-	-	-	6825-2527	-	-	200
0.7 GF/F*	-	-	-	-	-	-	6787-2520	-	-	1000
1.0	6750-2510	-	-	-	6784-2510	-	-	-	-	50
1.0	6751-2510	6781-2510	-	-	-	-	-	-	-	200
1.0	6753-2510	6794-2510	-	-	6798-2510	-	-	-	-	1000
1.0 GD 1*	-	-	-	-	-	-	6783-2510	-	-	100
1.0 GD 1*	-	-	-	-	-	-	6792-2510	-	-	1000
2.0 GD 2*	-	-	-	-	-	-	6783-2520	-	-	100

* Particle Retention Rating

† DpPP = Polypropylene Depth Filter; GD = Graded Density; GMF = Glass microfiber; H-PTFE = Hydrophilic PTFE; NYL = Nylon; PES = Polyethersulfone; PP = Polypropylene; PTFE = Polytetrafluoroethylene; PVDF = Polyvinylidene difluoride; RC = Regenerated cellulose

Puradisc™ 30 mm syringe filters

Membrane [†] /housing	CA/PC	CN/PC	PTFE/PP	RC/PP	Connection in/out	Quantity/pack
Pore size (µm)						
0.2	10462200*	–	10463500*	–	FLL/ML	50
0.2	10462701	–	–	10462960*	FLL/ML	50
0.2	10462710	–	10463503	–	FLL/ML	100
0.2	10462700	–	10463505	–	FLL/ML	500
0.2	10462205*	–	–	–	FLL/MLL	50
0.2	10462206	–	–	–	FLL/MLL	500
0.2	–	–	10462300*	–	FLL/ML	50
0.45	10462100*	–	–	10462950*	FLL/ML	50
0.45	10462601	–	–	–	FLL/ML	50
0.45	10462610	–	10463513	–	FLL/ML	500
0.45	10462600	–	10463515	–	FLL/ML	100
0.8	10462241	–	–	–	FLL/ML	50
0.8	10462240*	–	–	–	FLL/ML	50
0.8	10462243	–	–	–	FLL/ML	500
1.0	–	–	10463523	–	FLL/ML	100
1.0	–	–	10463525	–	FLL/ML	500
1.2	10462260*	–	–	–	FLL/ML	50
1.2	10462261	–	–	–	FLL/ML	50
1.2	10462263	–	–	–	FLL/ML	500
5.0	–	10462000*	–	–	FLL/ML	50
5.0	–	10462520	–	–	FLL/ML	50
5.0	–	10462510	10463533	–	FLL/ML	100
5.0	–	10462500	10463535	–	FLL/ML	500

* Sterile

[†] CA = Cellulose acetate; CN = Cellulose Nitrate; FLL = Female Luer lock; ML = Male Luer; MLL = Male Luer lock; PC = Polycarbonate; PP = Polypropylene; PTFE = Polytetrafluoroethylene; RC = Regenerated cellulose

Puradisc™ 30 mm syringe filters

Pore size (µm)	Catalog number	Media /housing	Connection in/out	Color code	Quantity/pack	Quantity/pack
0.45	10462656	CA/PC	FLL/ML	White	50	50
0.45	10462655	CA/PC	FLL/ML	White	100	100
0.45	10462650	CA/PC	FLL/ML	White	500	500

[†] CA = Cellulose acetate; PC = Polycarbonate; FLL = Female Luer lock; ML = Male Luer

Whatman™ brand Uniflo™ syringe filters

Reliable quality, economical portfolio for basic applications.

- Choice of filter sizes: 13, 25 or 30 mm
- Available in 6 membrane types
- Laser etched printing on the filter for easy identification

Typical data

Uniflo™ syringe filters

	Uniflo™ 13 mm	Uniflo™ 25 mm	Uniflo™ 30 mm w/FG pre-filter syringe filter
Dimensions	19.6 mm × 16.9 mm	24.5 mm × 29.2 mm	24.5 mm × 24.5 mm
Filtration area	0.88 cm ²	3.45 cm ²	4.98 cm ²
Operation pressure	65.2 psi	65.2 psi	67.5 psi
Housing	Polypropylene	Polypropylene	Polypropylene
Volume hold up	≤ 50 µL after air purge	≤ 100 µL after air purge	≤ 200 µL after air purge
Flow direction	Flow should enter from inlet	Flow should enter from inlet	Flow should enter from inlet
Inlet connectors	Female Luer Lock	Female Luer Lock	Female Luer Lock
Outlet connectors	Male slip Luer	Male slip Luer	Male slip Luer
Sterilization	Autoclave at 121°C at 15 psi for 20 minutes	Autoclave at 121°C at 15 psi for 20 minutes	Autoclave at 121°C at 15 psi for 20 minutes
Biosafe	Polymer grade and membrane types meet the USP test requirements (for Class VI Plastics)	Polymer grade and membrane types meet the USP test requirements (for Class VI Plastics)	Polymer grade and membrane types meet the USP test requirements (for Class VI Plastics)
Pre-filtration media	N/A	N/A	100% borosilicate glass



Ordering information†

Uniflo™ syringe filters

Membrane†	Non-sterile, 13 mm			Quantity
	Nylon	PES	PTFE	
Pore size (µm)				
0.2	9910-1302	9912-1302	9911-1302	500/pack
0.45	9910-1304	9912-1304	9911-1304	500/pack

Membrane†	Non-sterile, 25 mm					Quantity
	Nylon	PES	PTFE	PVDF	H-PTFE	
Pore size (µm)						
0.2	9910-2502	9912-2502	9911-2502	9909-2502	9921-2502	500/pack
0.45	9910-2504	9912-2504	9911-2504	9909-2504	9921-2504	500/pack

Membrane†	Non-sterile, 30 mm with GF* prefilter					Quantity
	Nylon	PES	PTFE	PVDF	H-PTFE	
Pore size (µm)						
0.2	9930-3002	9924-3002	9928-3002	9926-3002	9932-3002	500/pack
0.45	9930-3004	9924-3004	9928-3004	9926-3004	9932-3004	500/pack

* GF = glass fiber

† PES = Polyethersulfone; PTFE = Polytetrafluoroethylene; PVDF = Polyvinylidene difluoride; H-PTFE = Hydrophilic polytetrafluoroethylene

‡ For a full list of products visit cytiva.com

Membrane†	Sterile, 13 mm		Sterile, 25 mm		Quantity
	PES	PES	PES	PVDF	
Pore size (µm)					
0.2	9916-1302	-	-	-	100/pack
0.45	9916-1304	-	-	-	100/pack
0.2	-	9914-2502	9913-2502	-	45/pack
0.45	-	9914-2504	9913-2504	-	45/pack

† PES = Polyethersulfone; PVDF = Polyvinylidene difluoride

‡ For a full list of products visit cytiva.com



Sterile Uniflo™ syringe filters

Certified quality for method development: SPARTAN™ filters

Whatman™ brand SPARTAN™ syringe filters are HPLC-certified for confidence and consistent results. Tested and certified for the absence of UV-absorbing substances (210 and 254 nm) with water, methanol, acetonitrile to ensure absence of interfering substances.

- Hydrophilic, low protein-binding membrane made of regenerated cellulose
- Excellent chemical resistance against the standard aqueous and organic HPLC solvents
- Tested and certified for the absence of UV-absorbing substances at wavelengths of 210 and 254 nm with water, methanol, and acetonitrile
- 13 mm diameter with Mini-Tip options
- 13 mm diameter with extremely low dead volume < 10 µL



SPARTAN™ syringe filters

Ordering information

SPARTAN™ syringe filters

Product code	Diameter (mm)	Pore size (µm)	Membrane/housing*	Connection in/out*	Color code	Quantity/pack
10463040	13	0.2	RC/PP	FLL/Mini-Tip	dark brown	100
10463042	13	0.2	RC/PP	FLL/Mini-Tip	dark brown	500
10463100	13	0.2	RC/PP	FLL/ML	dark brown	100
10463102	13	0.2	RC/PP	FLL/ML	dark brown	500
10463030	13	0.45	RC/PP	FLL/Mini-Tip	light brown	100
10463032	13	0.45	RC/PP	FLL/Mini-Tip	light brown	500
10463110	13	0.45	RC/PP	FLL/ML	light brown	100
10463112	13	0.45	RC/PP	FLL/ML	light brown	500
10463060	30	0.2	RC/PP	FLL/ML	dark brown	100
10463062	30	0.2	RC/PP	FLL/ML	dark brown	500
10463053	30	0.45	RC/PP	FLL/ML	light brown	50
10463050	30	0.45	RC/PP	FLL/ML	light brown	100
10463052	30	0.45	RC/PP	FLL/ML	light brown	500

* PP = Polypropylene; FLL = Female Luer lock; ML = Male Luer; RC = Regenerated cellulose

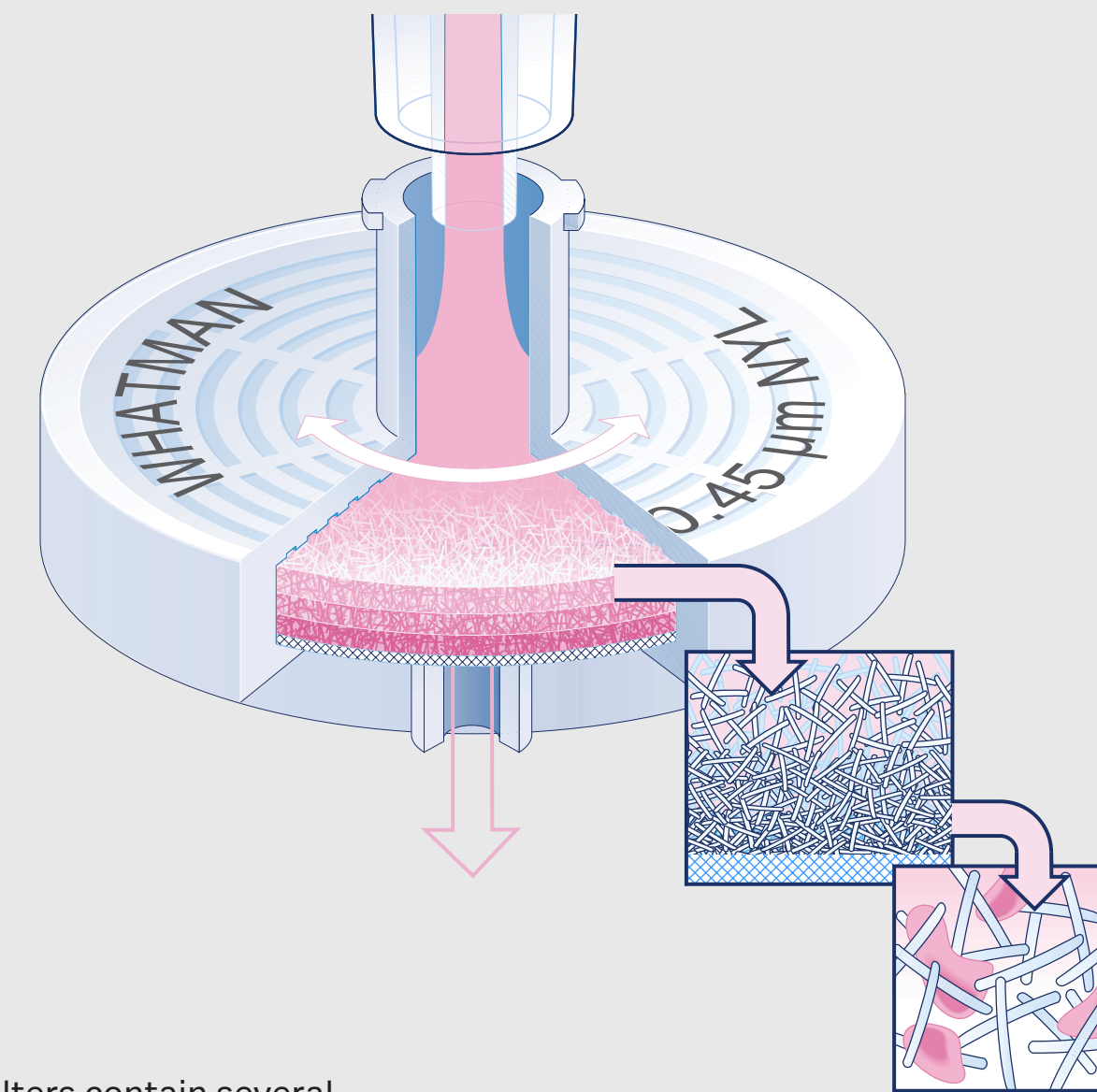
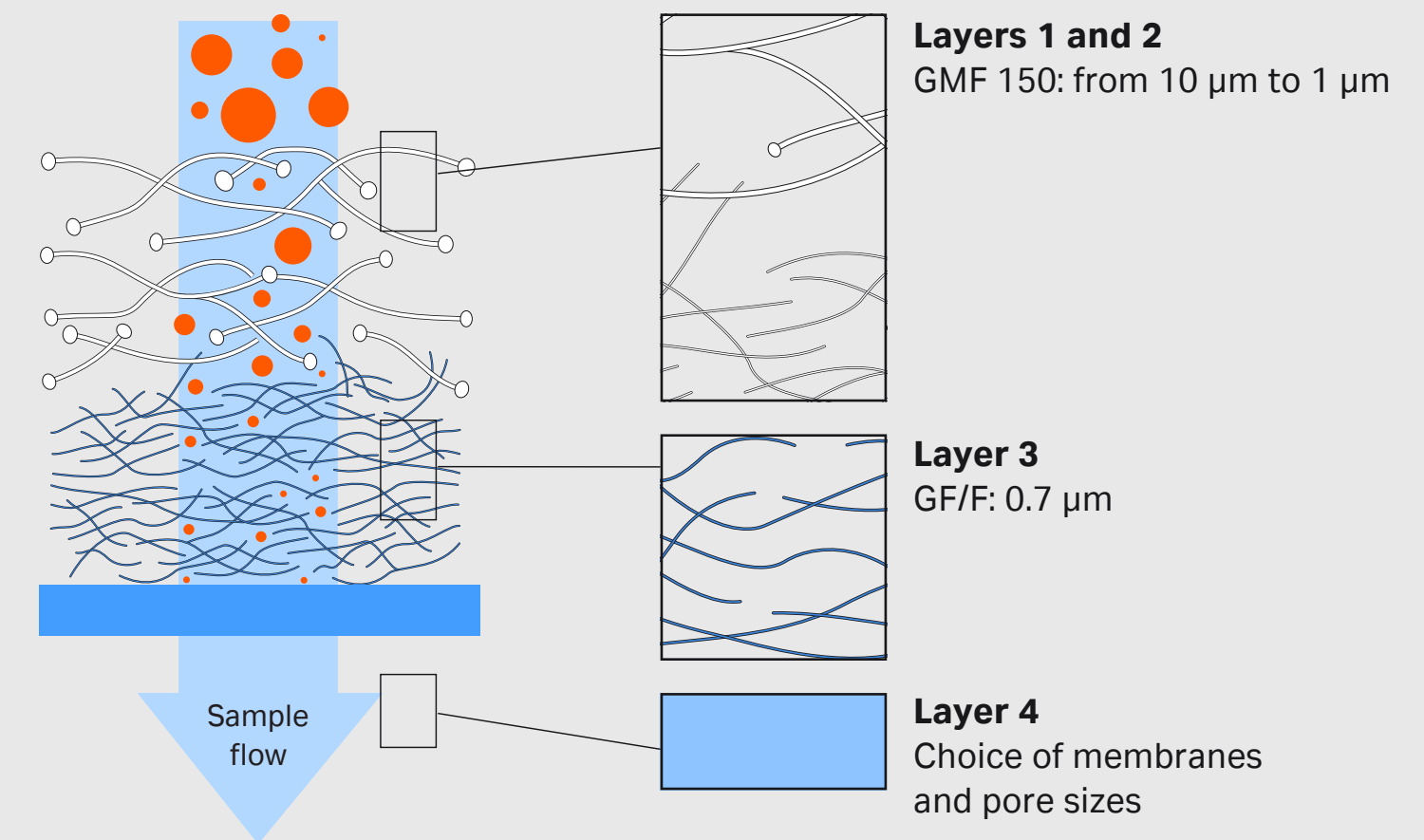


High-particulate, challenging sample filtration: Whatman GD/X™ filters

Filter even the most difficult samples and use less hand pressure with Whatman GD/X™ syringe filters.

- Exceptional loading capacity and fast flow rates – prevents back pressure and clogging of membrane
- Graduated microfiber prefilter from 1 µm to 0.7 µm
- Higher flow rates (3×) compared to unprotected membranes
- Uses glass microfiber-based prefilters

For metals testing and other applications where glass-based compounds could interfere with analysis, we offer a related syringe filter (GD/XP), which uses polypropylene prefilters.



Whatman GD/X™ syringe filters contain several filtration layers that substantially reduce blockage and increase volume throughput

Typical data

Whatman GD/X™ syringe filters

Membrane	Whatman GD/X™ 13 mm	Whatman GD/X™ 25 mm
Housing	Polypropylene (pigment-free)	Polypropylene(pigment-free)
Filtration area	1.3 cm ²	4.6 cm ²
Maximum pressure	100 psi (6.9 bar)	75 psi (5.2 bar)
Volume "hold-up" full housing with air purge	0.5 mL 50 µL (approx)	1.4 mL 250 µL (approx)
Dimensions	21.6 × 29.8 mm	20.8 × 29.8 mm
Weight	3 g (approx)	3 g (approx)
Flow direction	Flow should enter from the inlet	Flow should enter from the inlet
Inlet connection	Female Luer lock	Female Luer lock
Outlet connection	Male Luer	Male Luer
Sterilization*	Autoclave at 121°C at 15 psi for 20 min	Autoclave at 121°C at 15 psi for 20 min
Glass microfiber prefiltration media	100% borosilicate glass microfiber	100% borosilicate glass microfiber

* Applies to non-sterile filters only. Do not autoclave sterile Whatman GD/X™ syringe filters.

Whatman™ GD/XP syringe filters

Membrane	Whatman™ GD/XP 25 mm
Housing	Polypropylene (pigment-free)
Filtration area	4.6 cm ²
Maximum pressure	75 psi (5.2 bar)
Volume 'hold-up' full housing	1.4 ml with air purge 250 µL (approx)
Dimensions	20.8 × 30.0 mm
Weight	3 g (approx)
Flow direction	Flow should enter from the inlet
Inlet connection	Female Luer lock
Outlet connection	Male Luer
Sterilization†	Autoclave at 121°C at 15 psi for 20 min
Prefiltration media	Polypropylene

† Not recommended for nylon.



Whatman GD/X™ Nylon w/GMF syringe filters

Ordering information

Whatman GD/X™ syringe filters

Membrane*	Pore size (µm)	Diameter (mm)	Non-sterile		Sterile	
			150/pack	1500/pack	50/pack	500/pack
Nylon high charge (positive)	0.2	25	6869-2502	-	-	-
	0.45	25	6869-2504	-	-	-
Nylon	0.2	13	6870-1302	6871-1302	-	-
	0.2	25	6870-2502	6871-2502	-	-
	0.45	13	6870-1304	6871-1304	-	-
	0.45	25	6870-2504	6871-2504	-	-
	5	25	6870-2550	6871-2550	-	-
PVDF	0.2	13	6872-1302	-	-	-
	0.2	25	6872-2502	6873-2502	6900-2502	-
	0.45	13	6872-1304	6873-1304	-	-
	0.45	25	6872-2504	6873-2504	6900-2504	-
PTFE	0.2	13	6874-1302	6875-1302	-	-
	0.2	25	6874-2502	6875-2502	-	-
	0.45	13	6874-1304	6875-1304	-	-
	0.45	25	6874-2504	6875-2504	-	-
PES	0.2	13	6876-1302	-	-	-
	0.2	25	6876-2502	6905-2502	6896-2502	6897-2502
	0.45	13	6876-1304	-	-	-
	0.45	25	6876-2504	6905-2504	6896-2504	6897-2504
PP	0.2	13	6878-1302	-	-	-
	0.2	25	6878-2502	-	-	-

Membrane*	Pore size (µm)	Diameter (mm)	Non-sterile		Sterile	
			150/pack	1500/pack	50/pack	500/pack
RC	0.2	25	6887-2502	-	-	-
	0.45	25	6882-2504	6883-2504	-	-
CA	0.2	13	6880-1302	-	-	-
	0.2	25	6880-2502	-	6901-2502	-
	0.45	13	6880-1304	-	-	-
	0.45	25	6880-2504	-	6901-2504	-
GF/A [†]	1.6 [†]	13	6882-1316	-	-	-
	1.6 [†]	25	6882-2516	6883-2516	-	-
GF/B [†]	1 [†]	13	6884-1310	-	-	-
	1 [†]	25	6884-2510	-	-	-
GF/C™ [‡]	1.2 [†]	13	6883-1312	-	-	-
	1.2 [†]	25	6886-2512	-	-	-
GF/D [†]	2.7 [†]	13	6888-1327	-	-	-
	2.7 [†]	25	6888-2527	-	-	-
GF/F [†]	0.7 [†]	13	6890-1307	-	-	-
	0.7 [†]	25	6890-2507	6891-2507	-	-
	0.45 [†]	13	6894-1304	-	-	-
934-AH™ [‡]	1.5 [†]	25	6892-2515	-	-	-
GMF [†]	0.45 [†]	25	6894-2504	6895-2504	6902-2504	-

* PP = Polypropylene; CA = Cellulose acetate; PES = Polyethersulfone; GF = Glass fiber; PVDF = Polyvinylidene difluoride; GMF = Glass microfiber; PTFE = Polytetrafluoroethylene, RC = Regenerated cellulose

[†] Glass microfiber particle retention rating

[‡] Contains GMF 150 without the GF/F prefilter

Whatman™ GD/XP syringe filters

Product code	Membrane*	Pore size (µm)	Diameter (mm)	Hydrophilic	Solvent resistance	Quantity/pack
6970-2504	Nylon	0.45	25	Yes	Good	150
6971-2504	Nylon	0.45	25	Yes	Good	1500
6972-2504	PVDF	0.45	25	Yes	Good	150
6973-2504	PVDF	0.45	25	Yes	Good	1500
6974-2504	PTFE	0.45	25	No	Very good	150
6978-2504	PP	0.45	25	No	Good	150
6993-2504	DpPP	0.45	25	No	Good	1500
6992-2504	DpPP	0.45	25	No	Good	150
6994-2504	PES	0.45	25	Yes	Poor	150
6995-2504	PES	0.45	25	Yes	Poor	1500

* PP = Polypropylene; PES = Polyethersulfone; PVDF = Polyvinylidene difluoride; PTFE = Polytetrafluoroethylene; DpPP = Polypropylene depth filter



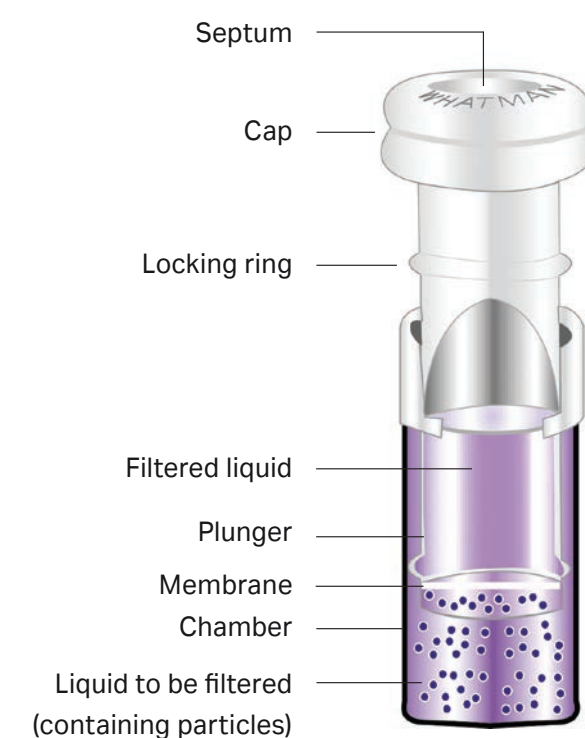
Whatman™ GD/XP syringe filter

Autosampler and workflow support: Mini-UniPrep™ filters

Mini-UniPrep™ syringeless filters – polypropylene or glass chambers

The Mini-UniPrep™ syringeless filters are compatible with most autosamplers.

- Easy-to-use design supports sample preparation outside of the lab if needed
- Process samples in one-third the time of traditional syringe filtration
- Replaces syringe, syringe filter, vial, and cap in one consumable
- Polypropylene or glass chamber options to prevent interference from chemical leaching
- Amber vials available for light sensitive samples
- Multi-compressors available for ease of use
- 12 × 33 mm vial can be used to filter up to 400 µL



Typical data

Mini-UniPrep™ and Mini-UniPrep™ G2 filter vials

	Mini-UniPrep™	Mini-UniPrep™ G2
Materials of construction		
Chamber:	Polypropylene	Borosilicate glass
Plunger housing:	Polypropylene	Polypropylene
Plunger inner storage vial:	N/A	Borosilicate glass
Filter medium:	As specified	As specified
Septum:	Silicone with PTFE liner	Silicone with PTFE liner
Cap:	Polypropylene	Polypropylene
Maximum operating temp	50°C (122°F)	50°C (122°F)
Max. unfiltered sample capacity	400 µL	500 µL
Max. filtered sample capacity	350 µL	330 µL
Dead volume	50 µL	170 µL
Recommended minimum filtering volume	100 µL	220 µL placed in the chamber to obtain 50 µL in inner storage vial
Nominal force needed to compress	Approx. 8.2 kg (18 lbs)	Approx. 11.3 kg (25 lbs)
Autosampler needle height adjustment:	3 mm from the bottom of Mini-UniPrep™	5 mm from the bottom of Mini-UniPrep™ G2
Autosampler compatibility	Any autosampler that accommodates standard 12 × 32 mm profile vials	Any autosampler that accommodates standard 12 × 32 mm profile vials



Mini-UniPrep™ syringeless filters

Ordering Information

Mini-UniPrep™ G2 filter vials with inner glass storage vial

Note: Adjust autosampler needle height to a minimum of 5 mm from the bottom of the Mini-UniPrep™ G2.

Membrane	Pore size (µm)	Housing	Cap	Product code 100/pack	Product code 1000/pack	Product code Starter pack (100/pack + Hand compressor)
RC*	0.2	Translucent	Normal	GN203NPERC	GN503NPERC	GN203NPERCSP
RC	0.45	Translucent	Normal	GN203NPURC	GN503NPURC	GN203NPURCSP
PTFE*	0.2	Translucent	Normal	GN203NPEORG	GN503NPEORG	GN203NPEORGSP
PTFE	0.2	Translucent	Slit septum	GS203NPEORG	GS503NPEORG	GS203NPEORGSP
PTFE	0.2	Amber	Normal	GN203APEORG	–	GN203APEORGSP
PTFE	0.45	Translucent	Normal	GN203NPUORG	GN503NPUORG	GN203NPUORGSP
PTFE	0.45	Translucent	Slit septum	GS203NPUORG	GS503NPUORG	GS203NPUORGSP
PVDF*	0.2	Translucent	Normal	GN203NPEAQU	GN503NPEAQU	GN203NPEAQU SP
PVDF	0.2	Translucent	Slit septum	GS203NPEAQU	GS503NPEAQU	GS203NPEAQU SP
PVDF	0.2	Amber	Normal	GN203APEAQU	–	GN203APEAQU SP
PVDF	0.45	Translucent	Normal	GN203NPUAQU	GN503NPUAQU	GN203NPUAQU SP
PVDF	0.45	Translucent	Slit septum	GS203NPUAQU	GS503NPUAQU	GS203NPUAQU SP
Nylon	0.2	Translucent	Normal	GN203NPENYL	GN503NPENYL	GN203NPENYLSP
Nylon	0.2	Translucent	Slit septum	GS203NPENYL	GS503NPENYL	GS203NPENYLSP
Polypropylene	0.2	Translucent	Normal	GN203NPEPP	GN503NPEPP	GN203NPEPPSP
Polypropylene	0.2	Translucent	Slit septum	GS203NPEPP	–	GS203NPEPPSP
Glass fiber	0.45	Translucent	Normal	GN203NPUGMF	GN503NPUGMF	GN203NPUGMFSP
Glass fiber	0.45	Translucent	Slit septum	GS203NPUGMF	–	GS203NPUGMFSP

* PTFE = polytetrafluoroethylene; PVDF = polyvinylidene difluoride; RC = regenerated cellulose

Hand compressor

Mini-UniPrep™ G2 hand compressor 1/pack	MUPG2HCPWC1
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Multi-compressor

Mini-UniPrep™ G2 multi-compressor 1/pack, comes with one tray	MUPG2MCPWC8
Mini-UniPrep™ G2 multi-compressor tray 1/pack	MUPG2MCWT8



Hand compressor

Mini-UniPrep™ filter vial with polypropylene housing

Note: Adjust autosampler needle height to a minimum of 3 mm from the bottom of the Mini-UniPrep™.

Membrane	Pore size (µm)	Housing	Cap	Product code 100/pack	Product code 1000/pack
PTFE*	0.2	Translucent	Standard	UN203NPEORG	UN503NPEORG
PTFE	0.2	Translucent	Slit septum	US203NPEORG	US503NPEORG
PTFE	0.2	Amber	Standard	UN203APEORG	-
PTFE	0.45	Translucent	Standard	UN203NPUORG	UN503NPUORG
PTFE	0.45	Translucent	Slit septum	US203NPUORG	US503NPUORG
PTFE	0.45	Amber	Standard	UN203APUORG	-
PVDF*	0.2	Translucent	Standard	UN203NPEAQU	UN503NPEAQU
PVDF	0.2	Translucent	Slit septum	US203NPEAQU	US503NPEAQU
PVDF	0.2	Amber	Standard	UN203APEAQU	-
PVDF	0.45	Translucent	Standard	UN203NPUAQU	UN503NPUAQU
PVDF	0.45	Translucent	Slit septum	US203NPUAQU	US503NPUAQU
PVDF	0.45	Amber	Standard	UN203APUAQU	-
PES*	0.2	Translucent	Standard	UN203NPEPES	UN503NPEPES
PES	0.2	Translucent	Slit septum	US203NPEPES	US503NPEPES
PES	0.2	Amber	Standard	UN203APEPES	-
PES	0.45	Translucent	Standard	UN203NPUPES	UN503NPUPES
PES	0.45	Amber	Standard	UN203APUPES	-
PES	0.45	Translucent	Slit septum	US203NPUPES	US503NPUPES
RC*	0.2	Translucent	Standard	UN203NPERC	UN503NPERC
RC	0.45	Translucent	Standard	UN203NPURC	UN503NPURC
Nylon	0.2	Translucent	Standard	UN203NPENYL	UN503NPENYL
Nylon	0.2	Translucent	Slit septum	US203NPENYL	US503NPENYL
Nylon	0.2	Amber	Standard	UN203APENYL	-
Nylon	0.45	Translucent	Standard	UN203NPUNYL	UN503NPUNYL
Nylon	0.45	Translucent	Slit septum	US203NPUNYL	US503NPUNYL
Nylon	0.45	Amber	Standard	UN203APUNYL	-

* RC = regenerated cellulose; PVDF = Polyvinylidene difluoride; PTFE = Polytetrafluoroethylene; PP = Polypropylene; PES = Polyethersulfone;

Mini-UniPrep™ filter vial with polypropylene housing (cont.)

Note: Adjust autosampler needle height to a minimum of 3 mm from the bottom of the Mini-UniPrep™.

Membrane	Pore size (µm)	Housing	Cap	Product code 100/pack	Product code 1000/pack
PP*	0.2	Translucent	Standard	UN203NPEPP	UN503NPEPP
PP	0.2	Translucent	Slit septum	US203NPEPP	US503NPEPP
PP	0.2	Amber	Standard	UN203APEPP	–
PP	0.45	Translucent	Standard	UN203NPUPP	UN503NPUPP
PP	0.45	Translucent	Slit septum	US203NPUPP	US503NPUPP
PP	0.45	Amber	Standard	UN203APUPP	–
DpPP*	0.45	Translucent	Standard	UN203NPUDPP	UN503NPUDPP
DpPP	0.45	Translucent	Slit septum	US203NPUDPP	US503NPUDPP
DpPP	0.45	Amber	Standard	UN203APUDPP	–
Glass fiber	0.45	Translucent	Standard	UN203NPUGMF	US503NPUGMF
Glass fiber	0.45	Translucent	Slit septum	US203NPUGMF	US503NPUGMF
Glass fiber	0.45	Amber	Standard	UN203APUGMF	–

* PP = Polypropylene; DpPP = Polypropylene depth filter

Multi-compressor

Description	Product Code
Mini-UniPrep™ multi-compressor 1/pack comes with one tray	MUPMCPBC8
Mini-UniPrep™ multi-compressor tray 1/pack	MUPMCBT8



Mini-UniPrep™ filter vial replaces syringe filter, syringe, autosampler vial, cap, and septum

Sample preparation prior to other instrumentation

Cytiva's Whatman™ products are among the industry leaders in separations technology, and our analytical sample filtration collection is no exception. Every filter is manufactured to exacting specifications that ensure reliable results and uncompromised performance.

		Anopore™	Cellulose acetate	Cellulose nitrate	Nylon	Polypropylene	Depth polypropylene	PES	PTFE	Hydrophilic PTFE	PVDF	Regenerated cellulose	Glass microfiber
High performance The workhorse of the lab, these syringe filters deliver premium quality with efficiency to meet most analytical needs, from basic to advanced.	Anotop™	•	–	–	–	–	–	–	–	–	–	–	–
	Puradisc™	–	•	•	•	•	•	•	•	•	•	•	•
Difficult filtration For use with high-particulate and viscous samples, these syringe filters contain two or more filter layers to allow efficient filtration without blockage for a cost-effective and efficient solution.	Anotop™ Plus	•	–	–	–	–	–	–	–	–	–	–	–
	Whatman GD/X™	–	•	–	•	•	•	•	•	–	•	•	•
	GD/XP	–	–	–	•	•	•	•	•	–	•	–	–
Automated systems These sturdy syringe filters are compatible with most high throughput and/or dissolution systems.	Roby	–	–	–	•	–	–	–	–	–	–	•	•
	850-DS	–	–	–	•	–	–	•	•	–	•	–	•
Application specific Dedicated uses: HPLC, IC and LC with certification; bioethanol and protein purification production; environmental samples prior to COO/DOC analysis.	Anotop™ IC	•	–	–	–	–	–	–	–	–	–	–	–
	Anotop™ LC	•	–	–	–	–	–	–	–	–	–	–	–
	Puradisc™ Aqua	–	•	–	–	–	–	–	–	–	–	–	–
	MashPrep™	–	–	–	•	–	–	–	–	–	–	–	–
	SPARTAN™ Certified	–	–	–	–	–	–	–	–	–	–	•	–
	Protein Prep	–	–	–	–	–	–	–	–	–	–	•	–
All-in-One Integrated devices include the collection receptacle to save time, reduce waste and reduce sample handling.	Autovial™	–	•	–	•	•	–	•	•	–	•	–	•
	UniPrep™	–	–	–	•	–	–	–	•	–	•	–	•
	Mini-UniPrep™	–	–	–	•	•	•	•	•	–	•	•	•
	Mini-UniPrep™ G2	–	–	–	•	•	–	–	•	–	•	•	•
Advantage Reliable quality, economical portfolio for basic applications.	Uniflo™	–	–	–	•	–	–	•	•	•	•	–	•
Mobile phase In-line filter devices for degassing solutions used as the carrier phase in analytical equipment	Aqueous IFD	–	–	–	•	–	–	–	–	–	–	–	–
	Solvent IFD	–	–	–	–	•	–	–	–	–	–	–	–

Ordering information

Anotop™ syringe filters

Product code	IC* certified	Pore size (µm)	Diameter (mm)	Glass prefilter	Sterile blister packed	Quantity/pack
6809-1002	No	0.02	10	No	No	50
6809-1012	No	0.1	10	No	No	50
6809-1022	No	0.2	10	No	No	50
6809-1102	No	0.02	10	No	Yes	50
6809-1112	No	0.1	10	No	Yes	50
6809-1122	No	0.2	10	No	Yes	50
6809-3002	No	0.02	10	Yes	No	50
6809-3012	No	0.1	10	Yes	No	50
6809-3022	No	0.2	10	Yes	No	50
6809-3102	No	0.02	10	Yes	Yes	50
6809-3112	No	0.1	10	Yes	Yes	50
6809-3122	No	0.2	10	Yes	Yes	50
6809-2002	No	0.02	25	No	No	50
6809-2012	No	0.1	25	No	No	50
6809-2022	No	0.2	25	No	No	50
6809-2102	No	0.02	25	No	Yes	50
6809-2112	No	0.1	25	No	Yes	50
6809-2122	No	0.2	25	No	Yes	50
6809-4002	No	0.02	25	Yes	No	50
6809-4012	No	0.1	25	Yes	No	50
6809-4022	No	0.2	25	Yes	No	50
6809-4102	No	0.02	25	Yes	Yes	50
6809-4112	No	0.1	25	Yes	Yes	50
6809-4122	No	0.2	25	Yes	Yes	50
6809-9233	Yes	0.2	10	No	No	100
6809-9232	Yes	0.2	10	No	Yes	50
6809-9244	Yes	0.2	25	No	No	200

* IC = ion chromatography

Anotop™ syringe filters

Pore size (µm)	Media	Catalog number	Quantity/pack
Anotop™ 10 Plus			
0.02	Anopore™ with prefilter	6809-3002	50
0.1	Anopore™ with prefilter	6809-3012	50
0.2	Anopore™ with prefilter	6809-3022	50
0.02	Anopore™ with prefilter, sterile	6809-3102	50
0.1	Anopore™ with prefilter, sterile	6809-3112	50
0.2	Anopore™ with prefilter, sterile	6809-3122	50
Anotop™ 25 Plus			
0.02	Anopore™ with prefilter	6809-4002	50
0.1	Anopore™ with prefilter	6809-4012	50
0.2	Anopore™ with prefilter	6809-4022	50
0.02	Anopore™ with prefilter, sterile	6809-4102	50
0.1	Anopore™ with prefilter, sterile	6809-4112	50
0.2	Anopore™ with prefilter, sterile	6809-4122	50
0.2	Anopore™ with prefilter	6809-4024	200

Anotop™ IC* and Anotop™ LC* syringe filters

Pore size (µm)	Membrane	Catalog number	Quantity/pack
Anotop™ 10 IC			
0.2	Anopore™	6809-9233	100
0.2	Anopore™	6809-9234	200
Anotop™ 25 IC			
0.2	Anopore™	6809-9244	200
Anotop™ 10 IC blister			
0.2	Anopore™	6809-9232	50
0.2	Anopore™	6809-9235	250
Anotop™ 10 LC			
0.2	Anopore™	2001-0100	100
0.2	Anopore™	2001-0200	200
Anotop™ 25 LC			
0.2	Anopore™	2002-5100	100
0.2	Anopore™	2002-5200	200
0.2	Anopore™ with prefilter	6809-4024	200

* IC = ion chromatography; LC = liquid chromatography



Anotop™ Plus 25 mm syringe filter

Autovial™ syringeless filters

Autovial™ syringeless filters replace syringe-coupled filtration devices with a single, convenient disposable unit. Consisting of a plunger and a graduated filter barrel with a choice of filtration media, Autovial™ speeds sample preparation — so you can get more work done in less time. Simply pour the sample directly into the filter barrel, insert the plunger, and compress the unit. The filter barrel has a support stand to protect the slip Luer outlet. Autovial™ syringeless filters are designed for filtration both into an autosampler and through direct instrument injection, by connecting a needle to the slip Luer outlet.



Autovial™ syringeless filters

Ordering information

Autovial™ syringeless filters

Product code	Prefilter	Pore size (µm)	Media [†]	Sterile blister packed	Quantity/pack
AV115NPUNYL**	None	0.45	NYL	No	50
AV115NPUAQU**	None	0.45	PVDF	No	50
AV115NPEORG**	None	0.2	PTFE	No	50
AV115NPUORG**	None	0.45	PTFE	No	50
AV115UGMF**	None	0.45	GMF	No	50
AV125UCA	Glass	0.45	CA	No	50
AV125ENAO	Glass	0.2	NYL	No	50
AV125UNAO	Glass	0.45	NYL	No	50
AV125NPUPSU**	None	0.45	PES	No	50
AV125EAQU	Glass	0.2	PVDF	No	50
AV125UAQU	Glass	0.45	PVDF	No	50
AV125NPUAQU**	None	0.45	PVDF	No	50
AV125EPP	PP	0.2	PP	No	50
AV125UPP	PP	0.45	PP	No	50
AV125EORG	Glass	0.2	PTFE	No	50
AV125UORG	Glass	0.45	PTFE	No	50
AV125UGMF	Glass	0.45*	GMF	No	50
AV525UNAO	Glass	0.45	NYL	No	1000
AV525UAQU	Glass	0.45	PVDF	No	1000
AV525UORG	Glass	0.45	PTFE	No	1000

* IC = ion chromatography

Technical data of syringe filters

Name	Dia. (mm)	Housing material*	Max. operating pressure (psi/bar)	Effective filter area (cm ²)	Hold-up volume after air purging (µl)	Inlet*	Outlet*	Dimensions (mm)
Anotop™ 10 Anotop™ 10 Plus Anotop™ 10 IC and LC	10	PP	100/6.9	0.78	Anotop™ 10 & 1C: < 20 Anotop™ 10 Plus: < 30	FLL	ML	
Anotop™ 25 Anotop™ 25 Plus Anotop™ 25 IC and LC	25	PP	100/6.9	4.78	Anotop™ 25 & 1C: < 150 Anotop™ 25 Plus: < 200	FLL	ML	
Whatman GD/X™ 13	13	PP	75/5.2	1.3	50 (approx)	FLL	ML	
Whatman GD/X™ 25 Whatman™ GD/XP 25	25	PP	75/5.2	4.6	250 (approx)	FLL	ML	
Puradisc™ 4 with and without tip (all membranes apart from PVDF)	4	PP	75/5.2	0.2	< 10	FLL	ML	
Puradisc™ 4 with and without tip (PVDF only)	4	PP	75/5.2	0.2	< 10	FLL	ML Tube Tip	
Puradisc™ 13	13	PP	75/5.2	1.3	< 25	FLL	ML	
Puradisc™ 13 with Tube Tip	13	PP	75/5.2	1.3	< 25	FLL	Tube Tip	
Puradisc™ 25	25	PP	75/5.2	4.2	< 100	FLL	ML	
Puradisc™ 30 MLL	30	PC	100/6.9	5.7	≤ 50	FLL	MLL	
Puradisc™ 30 Puradisc™ Aqua 30	30	PC	100/6.9	5.7	≤ 50	FLL	ML	
Puradisc™ 13 MT SPARTAN™ 13 MT	13	PP	100/6.9	0.75	≤ 10	FLL	Mini-Tip	
Puradisc™ 30 GF92	30	PP	100/6.9	5.7	≤ 50	FLL	MLL	
Puradisc™ 30 SPARTAN™ 30	30	PP	100/6.9	5.7	≤ 50	FLL	ML	
Roby 25	25	PP	100/6.9	4.2	≤ 50	FLL	ML	
SPARTAN™ 13	13	PP	100/6.9	0.75	≤ 10	FLL	ML	

* FLL = Female Luer lock; ML = Male Luer; MLL = Male Luer lock; PP = Polypropylene

General laboratory accessories

In addition to the filtration consumable range, we provide a comprehensive range of accessories for routine work in your laboratory.



Ordering Information

General laboratory accessories

Description	Product name	Dimension	Quantity	Product code
Phase separation paper <ul style="list-style-type: none"> • Separatory funnel replacement: Automatic cut-off • Ease of use: No special training required 	1PS Phase separator paper	Diam. 125 mm	100/pack	2200-125
		Diam. 150 mm	100/pack	2200-150
Optical lens cleaning tissue <ul style="list-style-type: none"> • Soft tissue for removing surface moisture and grease from lenses and other optical surfaces 	Grade 105	100 × 150 mm	25 wallets of 25 sheets	2105-841
		200 × 300 mm	100/pack	2105-862
Benchkote™ bench protection papers <ul style="list-style-type: none"> • High-quality, smooth, absorbent Whatman™ paper • Quickly absorbs liquid spills and protects the working surface • Benchkote™ Plus is thicker and more absorbent 	Benchkote™	460 × 570 mm	50/pack	2300-916
		460 mm × 50 m	1/pack	2300-731
	Benchkote™ Plus	500 × 600 mm	50/pack	2301-6150
		600 mm × 50 m	1/pack	2301-6160
pH indicator paper <ul style="list-style-type: none"> • Range of pH indicator and test papers for rapid results 	Color Bonded, 0.0 to 14.0 range	6 × 80 mm	100 strips, 1/pack	2613-991
	Standard Full Range, Reel, 1.0 to 14.0 range	7 mm × 5 m	1/pack	2600-100A
	Standard Narrow Range, Reel, 4.0 to 7.0 range	7 mm × 5 m	1/pack	2600-102A
Pump protection filters <ul style="list-style-type: none"> • Protects vacuum pump systems from aqueous aerosols. Hydrophobic PTFE membranes retain 99.99% of airborne particles > 0.1 µm 	VACU-GUARD	50 mm	10/pack	6722-5000
Weighing papers <ul style="list-style-type: none"> • Reliably allow samples to be transferred to scales without adding unwanted substances that could impact analytical results 	Grade 2122 weighing paper	100 × 100 m*	500/pack	10347893

* For a full list of products visit cytiva.com

Fermentation vessel venting

Description	Membrane type	Filtration area	Product code
Polydisc TF	PTFE	16 cm ²	6720-5002
HEPA-VENT	Hydrophobic glass microfiber	16 cm ²	6723-5000
PolyVENT	PTFE	500 cm ²	6713-5036
		1000 cm ²	6713-1075
HEPA-CAP	Hydrophobic glass microfiber	625 cm ²	2609T
		1300 cm ²	2709T
		2590 cm ²	2809T



Polydisc in-line filter

Filtration hardware and accessories

Description	Product name	Dimension	Quantity	Product code
Filtration flask assembly for batch filtration <ul style="list-style-type: none"> Consists of a 250 ml glass filtration funnel and 1000 ml flask, funnel base, top, and clamp Suited for use with Whatman™ filtration membranes 	GV050/2 vacuum filtration unit	–	–	10442200
Pressure filtration apparatus <ul style="list-style-type: none"> Stainless steel Infusion vessel 2200 ml 	MD142/5/3	142 mm	1	10451610
Pressure filter holder <ul style="list-style-type: none"> PTFE Infusion vessel 1500 ml 	MD142/7/3	142 mm	1	10451710
3-piece filter funnel <ul style="list-style-type: none"> For quick and easy filtration Choice of 3 plates 	Filter funnel	47 mm	1	1950-004
	Filter funnel	90 mm	1	1950-009
	Filter funnel	70 mm	1	1950-017
Membrane holder <ul style="list-style-type: none"> Produced from borosilicate glass Suitable for aqueous and organic solvent filtration 	Vacuum-type glass membrane holder	47 mm	1	1960-004
	Vacuum-type glass membrane holder	90 mm	1	1960-009



3- piece filter funnel

Chemical compatibility of membranes and housings*

Selecting the right filter depends on the solvent that you are using for your application. This table will help ensure that you get it right the first time.

Solvent	ANP	CA	CN	PC	PE	GMF	NYL	PP	DpPP	PES	H-PTFE	PTFE [‡]	PVDF	RC
Acetic acid, 5%	R	LR	R	R	–	R	R	R	R	R	R	R	R	R
Acetic acid, glacial	R	NR	NR	–	–	R	LR	R	R	R	R	R	R	NR
Acetone	R	NR	NR	NR	R	R	R	R	R	NR	R	R	NR	R
Acetonitrile	R	NR	NR	–	–	R	R	R	R	NR	R	R	R	R
Ammonia, 6 N	NR		NR	NR	LR	LR	R	R	R	R	R	R	LR	LR
Amyl acetate	LR	NR	NR	NR	R	R	R	R	R	LR	R	R	LR	R
Amyl alcohol	R	LR	LR	–	–	R	R	R	R	NR	R	R	R	R
Benzene [†]	R	R	R	NR	R	R	LR	NR	NR	R	R	R	R	R
Benzyl alcohol [†]	R	LR	LR	LR	R	R	LR	R	R	NR	R	R	R	R
Boric acid	R	R	R	R	R	R	LR	R	R	–	–	R	R	R
Butyl alcohol	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Butyl chloride [†]	–	–	–	–	–	R	NR	NR	NR	–	–	R	R	–
Carbon tetrachloride [†]	R	NR	R	LR	R	R	LR	NR	NR	NR	R	R	R	R
Chloroform [†]	R	NR	R	NR	R	R	NR	LR	LR	NR	R	R	R	R
Chlorobenzene [†]	R	–	LR	NR	–	R	NR	LR	–	NR	–	R	R	R
Citric acid	–	–	–	–	–	R	LR	R	–	R	–	R	R	R
Cresol	–	NR	R	–	–	R	NR	NR	NR	NR	–	R	NR	R
Cyclohexane	R	NR	NR	R	R	R	NR	NR	NR	NR	–	R	R	R
Cyclohexanone	R	NR	NR	–	–	R	NR	R	R	NR	R	R	R	R
Diethylacetamide	–	NR	NR	–	–	R	R	R	R	–	–	R	NR	R
Dimethylformamide	LR	NR	NR	–	–	R	R	R	R	NR	R	R	NR	LR
Dioxane	R	NR	NR	NR	R	R	R	R	R	LR	–	R	LR	R
DMSO	LR	NR	NR	NR	R	R	R	R	R	NR	R	R	LR	LR
Ethanol	R	R	NR	R	R	R	R	R	R	R	–	R	R	R

* ANP = Anopore™; CA = Cellulose acetate; CN = Cellulose nitrate; DpPP = Polypropylene depth filter; GMF = Glass microfiber; NYL = Nylon; PC = Polycarbonate; PE = Polyester; PES = Polyethersulfone; PP = Polypropylene; H-PTFE = Hydrophilic Polytetrafluoroethylene; PTFE = Polytetrafluoroethylene; PVDF = Polyvinylidene difluoride; RC = Regenerated cellulose R = Resistant; LR = Limited Resistance; NR = Not Recommended.

† Short Term Resistance of Housing.

‡ Membrane may need pre-wetting with isopropanol/methanol if filtering a polar liquid.

The above data is to be used as a guide only. Testing prior to application is recommended.

Solvent	ANP	CA	CN	PC	PE	GMF	NYL	PP	DpPP	PES	H-PTFE	PTFE [‡]	PVDF	RC
Ethers	R	LR	LR	R	R	R	R	NR	NR	R	R	R	LR	R
Ethyl acetate	R	NR	NR	NR	R	R	R	R	R	NR	R	R	NR	R
Ethylene glycol	R	LR	LR	R	R	R	R	R	R	R	R	R	R	R
Formaldehyde	LR	LR	R	R	R	R	R	LR	LR	R	R	R	R	LR
Freon TF	R	R	R	R	R	R	NR	NR	NR	R	–	R	R	–
Formic acid	–	LR	LR	–	–	R	NR	R	R	R	–	R	R	LR
Hexane	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Hydrochloric acid, conc.	NR	NR	NR	NR	NR	R	NR	LR	LR	R	R	R	R	NR
Hydrofluoric acid	–	NR	NR	–	–	NR	NR	LR	LR	–	–	R	R	NR
Isobutyl alcohol	R	LR	LR	R	R	R	R	R	R	–	R	R	R	R
Isopropyl alcohol	R	R	LR	–	–	R	R	R	R	–	R	R	R	R
Methanol	R	R	NR	R	R	R	R	R	R	R	R	R	R	R
Methyl ethyl ketone	R	LR	NR	NR	R	R	R	R	R	NR	R	R	NR	R
Methylene chloride [†]	R	NR	LR	–	–	R	NR	LR	LR	NR	R	R	R	R
Nitric acid, conc.	–	NR	NR	LR	NR	R	NR	NR	NR	NR	R	R	R	NR
Nitric acid, 6 N	–	LR	LR	–	–	R	NR	LR	LR	LR	R	R	R	LR
Nitrobenzene [†]	LR	NR	NR	NR	R	R	LR	R	R	NR	–	R	R	R
Pentane	R	R	R	R	R	R	R	NR	NR	R	–	R	R	R
Perchloroethylene	R	R	R	–	–	R	LR	NR	NR	NR	R	R	R	R
Phenol 0.5%	LR	LR	R	–	–	R	NR	R	R	NR	–	R	R	R
Pyridine	R	NR	NR	NR	R	R	LR	R	R	NR	R	R	NR	R
Sodium hydroxide, 6N	NR	NR	NR	NR	NR	NR	LR	R	R	R	R	R	NR	NR
Sulfuric acid, conc.	NR	NR	NR	NR	NR	R	NR	NR	NR	NR	R	R	NR	NR
Tetrahydrofuran	R	NR	NR	–	–	R	R	LR	LR	NR	R	R	R	R
Toluene [†]	R	LR	R	NR	R	R	LR	LR	LR	NR	R	R	R	R
Trichloroethane [†]	R	NR	LR	NR	R	R	LR	LR	LR	NR	R	R	R	R
Trichloroethylene [†]	R	–	R	–	–	R	NR	LR	LR	NR	R	R	R	R
Water	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Xylene [†]	R	R	R	–	–	R	LR	LR	LR	LR	R	R	R	R

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‡ Membrane may need pre-wetting with isopropanol/methanol if filtering a polar liquid.

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