

Filter Discs

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Filter Discs

- Complies with ISO 4793
- For use by glassblowers constructing special apparatus
- Manufactured from Pyrex borosilicate glass for resistance to heat and chemical corrosion
- Close control of pore size
- Accurate and consistent disc dimensions
- High mechanical strength to withstand full vacuum
- Convenient packaging

Catalogue No	Porosity grade	Nominal diameter, mm	Pack qty.
F010-010	0	10	10
F010-020	0	20	10
F010-030	0	30	10
F010-040	0	40	10
F010-050	0	50	10
F010-065	0	65	1
F010-090	0	90	1
F011-010	1	10	10
F011-020	1	20	10
F011-030	1	30	10
F011-040	1	40	10
F011-050	1	50	10
F011-065	1	65	1
F011-090	1	90	1
F011-120	1	120	1
F012-010	2	10	10
F012-020	2	20	10
F012-030	2	30	10
F012-040	2	40	10
F012-050	2	50	10
F012-065	2	65	1
F012-090	2	90	1
F012-120	2	120	1
F013-010	3	10	10
F013-020	3	20	10
F013-030	3	30	10
F013-040	3	40	10
F013-050	3	50	10
F013-065	3	65	1
F013-090	3	90	1
F013-120	3	120	1
F014-010	4	10	10
F014-020	4	20	10
F014-030	4	30	10
F014-040	4	40	10
F014-050	4	50	10
F014-065	4	65	1
F014-090	4	90	1
F014-120	4	120	1



Technical Specifications

Chalice Grade	Particle retention liquid, μm	Ash Content %	Typical thickness, μm	Basis weight, g/m^2
F1001	10-13	0.06	190	85
F1002	7-9	0.06	180	85
F1003	5-7	0.06	320	200
F1004	20-25	0.06	210	85
F1005	3-5	0.06	170	85

Qualitative Low Ash Filter Paper - Medium Grade F1001

For general laboratory filtrations, qualitative analysis. Medium retention and flow rate filter. Widely used for air pollution monitoring and gas detection. Equivalent to Whatman Grade No1. Supplied in boxes of 100

Catalogue No	Catalogue No: Folded Format	Diameter, mm
F101-042		42.5
F101-047		47
F101-050		50
F101-055		55
F101-070		70
F101-090		90
F101-100		100
F101-110	F111-110	110
F101-125	F111-125	125
F101-150	F111-150	150
F101-185	F111-185	185
F101-240	F111-240	240
F101-320		320
F101-950		460 x 570

Qualitative Low Ash Filter Paper - Medium/Slow Grade F1002

More absorbent and slightly more retentive with a slower filtration speed than Grade 1. Primarily used for monitoring specific contaminants in the atmosphere and soil. Equivalent to Whatman Grade No2. Supplied in boxes of 100

Catalogue No	Catalogue No Folded Format	Diameter, mm
F102-042		42.5
F102-047		47
F102-050		50
F102-055		55
F102-070		70
F102-090		90
F102-110	F112-110	110
F102-125	F112-125	125
F102-150	F112-150	150
F102-185	F112-185	185
F102-240	F112-240	240
F102-320	F112-320	320
F102-950		460x570

Qualitative Low Ash Filter Paper - Medium/Fast Grade F1003

A thick paper with good loading capacity, fine particle retention and increased strength. Extra thickness and increased wet strength makes the filter suitable for use in Buchner funnels. Equivalent to Whatman Grade No3. Supplied in boxes of 100



Catalogue No	Diameter, mm
F103-070	70
F103-090	90
F103-110	110
F103-125	125
F103-150	150
F103-185	185
F103-240	240
F103-320	320
F103-950	460x570

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Qualitative Low Ash Filter Paper - Very Fast Grade F1004

Offers high flow rate with good retention of larger particles. Also used as a rapid filter for routine cleanup of biological fluids or organic extracts and for rapid air pollution monitoring where collection of fine particles is not critical. Equivalent to Whatman Grade No4. Supplied in boxes of 100

Catalogue No	Catalogue No Folded Format	Diameter, mm
F104-042		42.5
F104-047		47
F104-050		50
F104-055		55
F104-070		70
F104-090		90
F104-110	F114-110	110
F104-125	F114-125	125
F104-150	F114-150	150
F104-185	F114-185	185
F104-240	F114-240	240
F104-320	F114-320	320
F104-950		460 x 570

Technical Specifications

Chalice Gade	Properties	Weight, g/m ²	Thickness, µm	Retention range, µm
F1113	Extra-fast, smooth and thick	160	470	65
F1093	Very-fast and Smooth	80	180	35-40

Qualitative General Purpose Filter Paper - Fast Grade F1113

High particle retention and extremely high loading capacity. Used for filtration of Gelatine, Resin Solutions and other viscous liquids. Equivalent to Whatman Grade No 113. Supplied in boxes of 100

Catalogue No	Catalogue No Folded Format	Diameter, mm
F132-055		55
F132-070		70
F132-090		90
F132-110	F133-110	110
F132-125	F133-125	125
F132-150	F133-150	150
F132-185	F133-185	185
F132-240	F133-240	240
F132-250		250
F132-320	F133-320	320

Qualitative Low Ash Filter Paper - Very Slow Grade F1005

The most efficient qualitative filter used for collecting small particles. Suitable for chemical analysis clarifying cloudy suspensions, and for water and soil analysis. Equivalent to Whatman Grade No5. Supplied in boxes of 100

Catalogue No	Catalogue No Folded Format	Diameter, mm
F105-042		42.5
F105-047		47
F105-050		50
F105-055		55
F105-070		70
F105-090		90
F105-110	F115-110	110
F105-125	F115-125	125
F105-150	F115-150	150
F105-185	F115-185	185
F105-240	F115-240	240
F105-320	F115-320	320
F105-950		460 x 570

Qualitative General Purpose Filter Paper - Very Fast Grade F1093

Smooth grade, general purpose filter paper, for general filtration and sample preparation, where a high usage and a less critical analysis is required. Equivalent to Whatman Grade No 93. Supplied in boxes of 100

Catalogue No	Catalogue No Folded Format	Diameter, mm
F130-055		55
F130-070		70
F130-090		90
F130-100		100
F130-110	F131-110	110
F130-125	F131-125	125
F130-150	F131-150	150
F130-185	F131-185	185
F130-240	F131-240	240
F130-320	F131-320	320



Quantitative Filter Paper Ashless - Medium/Slow Grade F2040

The classic general purpose ashless filter paper with medium speed and particle retention. Typical applications include gravimetric analysis, the filtration solutions prior to atomic absorption spectrophotometry and in air pollution monitoring. Equivalent to Whatman Grade No40. Supplied in boxes of 100

Catalogue No	Diameter, mm
F140-042	42.5
F140-047	47
F140-050	50
F140-055	55
F140-070	70
F140-090	90
F140-110	110
F140-125	125
F140-150	150
F140-185	185
F140-240	240
F140-950	460 x 570

Quantitative Filter Paper Ashless - Very Slow F2042

World standard for critical gravimetric analysis with very fine particle retention. Typical analytical precipitates include barium sulphate, metastannic acid and finely precipitated calcium carbonate. Equivalent to Whatman Grade No42. Supplied in boxes of 100

Catalogue No	Diameter, mm
F142-042	42.5
F142-047	47
F142-050	50
F142-055	55
F142-070	70
F142-090	90
F142-110	110
F142-125	125
F142-150	150
F142-185	185
F142-240	240
F142-950	460 x 570

Technical Specifications

Chalice Grade	Particle retention liquid, μm	Ash Content %	Typical thickness, μm	Basis weight, g/m^2
F2040	7 - 9	0.007	170	92
F2041	20-25	0.007	190	84
F2042	2.3	0.007	160	100
F2043	14 - 17	0.007	180	96
F2044	2 - 4	0.007	160	77

Quantitative Filter Paper Ashless - Fast Grade F2041

Fast filter paper recommended for analytical procedures involving coarse particles or gelatinous precipitates (e.g. iron or aluminium hydroxides). Also used in quantitative air pollution analysis as a paper tape for impregnation when determining gaseous compounds at high flow rates. Equivalent to Whatman Grade No41. Supplied in boxes of 100

Catalogue No	Diameter, mm
F141-042	42.5
F141-047	47
F141-050	50
F141-055	55
F141-070	70
F141-090	90
F141-110	110
F141-125	125
F141-150	150
F141-185	185
F141-240	240
F141-950	460 x 570



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Quantitative Filter Paper Ashless - Medium Grade F2043

A moderately fast filter paper used for foodstuff analysis, soil analysis, particle collection in air pollution monitoring and inorganic analysis in construction, mining and steel industries. Equivalent to Whatman Grade No43. Supplied in boxes of 100

Catalogue No	Diameter mm
F143-042	42.5
F143-047	47
F143-050	50
F143-055	55
F143-070	70
F143-090	90
F143-110	110
F143-125	125
F143-150	150
F143-185	185
F143-240	240
F143-950	460x570

Quantitative Filter Paper Ashless - Very Fast Grade F2045

Filter paper of very high rate of filtration, wide-pored, soft, spongy structure and extremely low-ash content. Applications include determination of ash contents in foodstuffs, PCB determination in foodstuffs and processing (ashing) fruit juice samples for photometric determinations. Supplied in boxes of 100

Catalogue No	Diameter, mm
F145-025	25
F145-042	42.5
F145-047	47
F145-050	50
F145-055	55
F145-070	70
F145-090	90
F145-110	110
F145-125	125
F145-150	150
F145-185	185
F145-240	240
F145-950	460 x 570

Note:
These filter papers have fast or very fast filtration rates and are particularly useful in filtering coarse precipitates or relatively straight forward substances.

Quantitative Filter Paper Ashless - Slow Grade F2044

Gives the lowest ash weight for any given disc size. Slightly less efficient for collecting particles smaller than Grade 2042 but has a higher flow rate. Equivalent to Whatman Grade No44. Supplied in boxes of 100

Catalogue No	Diameter mm
F144-042	42.5
F144-047	47
F144-050	50
F144-055	55
F144-070	70
F144-090	90
F144-110	110
F144-125	125
F144-150	150
F144-185	185
F144-240	240
F144-950	460x570

Technical Specification

Grade	Particle retention liquid, μm	Ash, %	Typical thickness, μm	Basis weight, g/m^2
F2140	7 - 12	0.006	160	80
F2141	20 - 25	0.006	170	80
F2142	2 - 4	0.006	150	80

Quantitative Hardened Ashless - Medium/Fast Grade F2140

Medium retention and flow rate with high chemical resistance to strong acid and alkali. Used in analysis of metals in acid/alkali solutions and in collecting hydroxides after precipitation by strong alkalis. Equivalent to Whatman Grade No540. Supplied in boxes of 100

Catalogue No	Diameter, mm
F150-042	42.5
F150-047	47
F150-050	50
F150-055	55
F150-070	70
F150-090	90
F150-110	110
F150-125	125
F150-150	150
F150-185	185
F150-240	240

Quantitative Hardened Ashless Filter Paper - Fast Grade F2141

Offers fast filtration of coarse particles and gelatinous precipitates in acid/alkali solutions during gravimetric analysis. Typical applications include fibre in animal foodstuffs, gelatine in milk, chloride in cement and chloride and phosphorous in coal and coke. Equivalent to Whatman Grade No541. Supplied in boxes of 100

Catalogue No	Diameter, mm
F151-042	42.5
F151-047	47
F151-050	50
F151-055	55
F151-070	70
F151-090	90
F151-110	110
F151-125	125
F151-150	150
F151-185	185
F151-240	240

Quantitative Hardened Ashless Filter Paper - Slow Grade F2142

High retention of fine particles in solution that would weaken conventional filters. Slow flow rate. Very hard and strong with excellent chemical resistance. Often used in gravimetric metal determinations.

Equivalent to Whatman Grade No542. Supplied in boxes of 100

Catalogue No	Diameter, mm
F152-042	42.5
F152-047	47
F152-050	50
F152-055	55
F152-070	70
F152-090	90
F152-110	110
F152-125	125
F152-150	150
F152-185	185
F152-240	240

Technical Specifications

Grade	Retention range, μm	Weight, g/m^2	Thickness, mm	Retention, DOP
GF1	1.6	52	0.26	25 - 30
GF2	1.0	143	0.70	20 - 25
GF3	1.2	53	0.26	10 - 13
GF4	2.7	120	0.53	7 - 9
GF5	0.7	75	0.45	2 - 4
GF6	1.5	65	0.28	1 - 3

Glass Microfibre Filter, General Purpose - Grade GF1

High retention of fine particles in solution that would weaken conventional filters. Slow flow rate. Very hard and strong with excellent chemical resistance. Often used in gravimetric metal determinations.

Equivalent to Whatman Grade GF-A. Supplied in boxes of 100

Catalogue No	Diameter, mm
F181-025	25
F181-037	37
F181-047	47
F181-055	55
F181-070	70
F181-090	90
F181-110	110
F181-125	125
F181-150	150
F181-950	460 x 570

Glass Microfibre Filter, General Purpose - Thick Grade GF2

Thicker than GF1 with higher wet strength and increased load capacity. Recommended for concentrated suspensions and retention of small particles. Suitable for suspended solids in industrial effluents, especially at high loading.

Equivalent to Whatman Grade GF-B. Supplied in boxes of 100

Catalogue No	Diameter, mm
F182-025	25
F182-037	37
F182-047	47
F182-055	55
F182-070	70
F182-090	90
F182-110	110
F182-125	125
F182-150	150
F182-950	460 x 570

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Microfibre, General Purpose - Grade GF3

Combines fine particle retention with good flow rate. Used for collection of suspended solids in potable water and natural and industrial waste.
Widely used in biochemistry for cell harvesting, liquid scintillation counting and binding assays.
Equivalent to Whatman GF-C.
Packed in boxes of 100.

Catalogue No	Diameter, mm
F183-025	25
F183-037	37
F183-047	47
F183-055	55
F183-070	70
F183-090	90
F183-110	110
F183-125	125
F183-150	150
F183-950	460 x 570

Glass Microfibre Filter, General Purpose - Grade GF5

Highest retention performance of the range, and so it is particularly suited to filtering samples and solvents for HPLC. Also suitable for biochemical tests such as clarifications, protein filtrations and cellular cultures.
Equivalent to Whatman GF-F.
Packed in boxes of 100.

Catalogue No	Diameter, mm
F185-025	25
F185-037	37
F185-047	47
F185-055	55
F185-070	70
F185-090	90
F185-110	110
F185-125	125
F185-150	150
F185-950	460x570

Glass Microfibre Filter, General Purpose - Grade GF4

General purpose membrane pre-filter. Its high particle retention ensures the sample is properly clarified before passing through surface filters.
Equivalent to Whatman GF-D.

Catalogue No	Diameter, mm
F184-025	25
F184-037	37
F184-047	47
F184-055	55
F184-070	70
F184-090	90
F184-110	110
F184-125	125
F184-150	150
F184-950	460 x 570

Glass Microfibre Filter, General Purpose - Grade GF6

Smooth surface borosilicate glass microfibre filter suitable for determining total suspended solids in water, removal of turbidity and filtration of bacterial cultures. Particularly recommended for water pollution monitoring, cell harvesting, liquid scintillation counting and air pollution monitoring. Equivalent to Whatman No934-AH. Packed in boxes of 100.

Catalogue No	Diameter, mm
F186-025	25
F186-037	37
F186-047	47
F186-055	55
F186-070	70
F186-090	90
F186-110	110
F186-125	125
F186-150	150
F186-950	460 x 570



Filter Holders Vacuum Manifolds

Well priced range of vacuum manifolds for testing multiple samples by vacuum filtration. A choice of 3 or 6 place manifolds constructed in either PVC or Stainless Steel. Manifolds accept any vacuum funnel using a No.8 silicone stopper.

- Each branch independently operated by a three-way PTFE valve
- Polished stainless steel manifolds are autoclavable and have anodised aluminium handles
- Serrated vacuum hose connection accepts tubing from an appropriate vacuum source

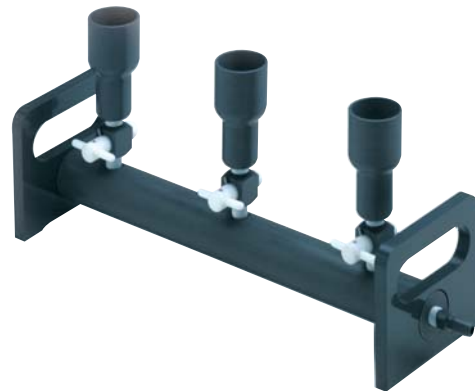
Catalogue No	Type	Description	Dimensions (lwxhx), mm
F323-113	3 Place	Stainless steel manifold with PTFE stopcocks	457 x 120 x 203
F323-116	6 Place	Stainless steel manifold with PTFE stopcocks	724 x 120 x 203
F323-123	3 Place	PVC manifold with PTFE stopcocks	457 x 120 x 203
F323-126	6 Place	PVC manifold with PTFE stopcocks	724 x 120 x 203



F323-116



F323-123



Filter Holder, Vacuum, for 25mm Membranes

For small volume particulate or biological contamination analysis. With sintered disc to support 25mm diameter membranes. Fully autoclavable.

- Comprises three components which should be ordered separately:
 - Funnel, 15ml capacity
 - Support base with sintered glass disc
 - Metal retaining clip

Catalogue No	Description
F334-224	Borosilicate glass funnel, 15ml
F334-226	Borosilicate glass base
F334-228	Clip

F334-224



Filter Holder, Vacuum, for 47mm Membranes

With sintered glass disc to support 47mm diameter membranes. Fully autoclavable.

- Comprises three components that should be ordered separately:
 - Funnel, 300ml capacity
 - Support base with sintered glass disc
 - Metal retaining clip

Catalogue No	Description
F334-241	Borosilicate glass funnel, 300ml
F334-243	Borosilicate glass base
F334-245	Clip

F334-241



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Filter Holders, Reusable

- Sterilisation plate, one piece, clear, designed to provide maximum flow rate
- Analytical plate, two piece, white, designed to provide optimal membrane support
- For use with 47mm membranes
- Two side arms allow connection via 6 to 8mm tubing to a vacuum line

Catalogue No	Upper chamber capacity, ml	Lower chamber capacity, ml	Diameter of lower chamber, mm
F347-400	250	250	83
F347-405	500	500	117
F347-410	500	1000	114



Filter Holders, Reusable, with Funnel

- Sterilisation plate, one piece, clear, designed to provide maximum flow rate
- Analytical plate, two piece, white, designed to provide optimal membrane support
- For use with 47mm membranes
- For use with any filtering flask or manifold that accepts a suitable one hole rubber stopper

Catalogue No	Upper chamber capacity, ml	Lower chamber diameter, mm	Overall height, mm
F347-800	250	94	190
F347-805	500	120	214



Reusable Bottle Top Filters

- For use with 47mm membranes
- Screws securely onto glass media bottles with a 33 or 45mm neck
- Vacuum port on lower half of assembly, accepts 6 to 8mm tubing

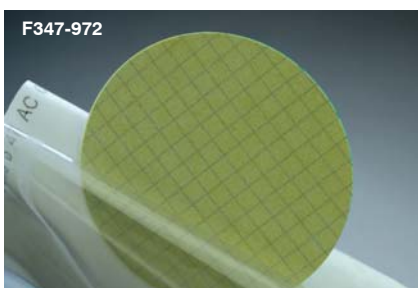
Catalogue No	Upper chamber capacity, ml	Neck diameter, mm
F347-920	250	33
F347-922	250	45
F347-924	500	33
F347-926	500	45



Membrane Filters, Cellulose Nitrate

- Suitable for microbial analysis, sterility testing, food and beverage testing
- Can be autoclaved at 121°C
- 0.45µm membrane has grid to facilitate counting

Catalogue No	Membrane diameter, mm	Pore size, µm	Colour	Pack qty.
F347-963	47	0.2	White	100
F347-965	47	0.45	White with green grid	100



Membrane Filters, Cellulose Nitrate, Water Quality

- Certified to meet requirements of standard methods for water quality work
- Contains no extractables that will inhibit or stimulate growth of bacteria
- Individually wrapped
- Autoclavable

Catalogue No	Membrane diameter, mm	Pore size, µm	Colour	Pack qty.
F347-972	47	0.45	White with green grid	100

Micro Filtration

Ready-to-use syringe filter units designed for the quick and efficient filtration of up to 100ml of liquid. Applications include clarifying/ultracleaning, HPLC sample preparation and biological sample preparation. These filters can also be used in combination to increase the total filterable volume.

- High flow rates attributed to large filter area and very low flow resistance of the filter support
- The opaque SGF filter unit contains glass fibre and has a retention efficiency of 98% for 0.7 μ m which make it very useful for clarifying dirty solutions or as a pre-filter on a 0.2 μ m or 0.45 μ m

Technical Information

Filter	26mm diameter
Colour coding	Blue (0.2 μ m), yellow (0.45 μ m), green (0.8 μ m), red (1.2 μ m), brown (5 μ m), opaque (SGF)
Connectors	Female Luer lock inlet, Male Luer lock outlet. (the 0.2 μ m and 0.45 μ m units are available with Male Luer outlets)
Filtration area	5.3 cm ²
Flow rates	Typical values for water at differential pressure = 1bar (100kPa), 60ml/min (0.2 μ m), 180ml/min (0.45 μ m), 350ml/min (0.8 μ m), 400ml/min (1.2 μ m), 500ml/min (5 μ m), 600ml/min (SGF)
Hold-up volume	0.1ml
Limits for use	Maximum recommended operating pressure, 4.5 bar (450 kPa). Housing resists bursts up to at least 6 bar (600 kPa). Maximum temperature, 50°C
Materials	Cellulose membrane (except SGF). Glass fibre filter (SGF). Cryolite® housing

Ordering Information

Catalogue No	Pore size	Colour	Sterility	Pack qty.
F362-840	0.2 μ m	Blue	Sterile	50 Individually packed
F362-844	0.45 μ m	Yellow	Sterile	50 Individually packed
F362-848	0.8 μ m	Green	Sterile	50 Individually packed
F362-852	1.2 μ m	Red	Sterile	50 Individually packed
F362-856	5 μ m	Brown	Sterile	50 Individually packed
F362-860	0.2 μ m	Blue	Non Sterile	100 Bulk packed
F362-864	0.45 μ m	Yellow	Non Sterile	100 Bulk packed
F362-868	0.8 μ m	Green	Non Sterile	100 Bulk packed
F362-872	1.2 μ m	Red	Non Sterile	100 Bulk packed
F362-876	5 μ m	Brown	Non Sterile	100 Bulk packed



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