Glass Fiber Filters

Pure borosilicate glass available with or without binder resin for prefiltration and contamination analysis



Millipore glass fiber disc filters are made of pure borosilicate fibers and are available in a wide range of flow rates and throughput capacities. The filters are available with or without binder resins and can be sterilized by EtO, gamma, or autoclave (121 °C at 15 psig).

Glass Fiber Filters with Binder Resin

Millipore filters with binder resin have superior wet strength and are excellent for qualitative analysis and prefiltration, especially for heavily contaminated liquids.

They are also widely used for clarification of aqueous solutions. Additional characteristics are noted below.

Type AP15

- Lowest dirt-holding capacity
- Recommended prefilter for 0.2 to 0.6 µm filters

Type AP20

- Lower retention, higher dirt-holding capacity than AP15 filters
- Recommended prefilter for 0.8 to 8.0 µm filters
- Use upstream to protect type AP15 filters

Type AP25

- Added thickness yields same retention and greater dirt-holding capacity as AP20
- Recommended prefilter for 0.9 to 8 µm filters, especially for proteinaceous and heavily contaminated liquids
- Use upstream to protect type AP15 filters

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Glass Fiber Filters without Binder Resin

The filters without binder resin retain their structural integrity without weight loss when heated up to 500 °C and can therefore be used in gravimetric analysis as well as for the filtration of hot gases. Glass fiber filters without binder resin can be used for a range of applications. Recommended applications for each filter type are covered below.

Type APFA

- Retains fine particles with good efficiency, even at high flow rates
- Recommended for monitoring wastewater and collecting suspended particles in gases (e.g., fumes from chimneys)
- Use in biochemical applications (e.g., collection of cells and filtration of protein or nucleic acid precipitates)

Type APFB

- Higher mechanical strength when wet and greater loading capacity than type APFA filters
- Use for liquid clarification, quantification of solids in suspensions of fine particles, and scintillation counting

Type APFC

- Greater retention, especially for fine particulate and microorganism removal than type APFA filters
- Use for determining total suspended solids in drinking water
- Use for filtering proteins or nucleic acid TCA precipitates and for collecting cells and microorganisms

Type APFD

- Thick filter with high flow and low retention
- Use for clarifying suspensions containing particulates >1.0 µm

Type APFF

- Use for filtering extremely fine precipitates such as protein, nucleic acids, or serum precipitates
- Recommended for USEPA method 1311 for TCLP analysis

Type AP40

- Recommended for Standard Methods Total Suspended Solids 2540D
- Recommended for USEPA method 1311 for TCLP analysis
- Maintains structural integrity without weight loss when ignited to 550 °C (1022 °F) after sample filtration
- Recommended for determining volatile suspended matter in wastewater and industrial effluents and for aerosol monitoring

Glass Fiber Filters Available with Binder Resin

	AP15	AP20	AP25
Retention rating (µm)	0.2–0.6	0.8–8.0	0.8–8.0
Thickness (µm)	790	380	1200
Water flow rate (mL/min/cm^2)	1.6	1.3	5.8
Air resistance (mm of H_2O @ 10.5 fpm or 5.3 cm/s)	210	48	35
DOP penetration @ 10.5 fpm (%)	0.10	0.08	0.03
Protein binding (g/cm^2)	100	60	110
Weight (g/m^2)	50	59	140

Glass Fiber Filters Available without Binder Resin

	APFA	APFB	APFC	APFD	APFF	AP40
Retention rating (µm)	1.6	1.0	1.2	2.7	0.7	–
Thickness (µm)	230	700	240	470	380	475
Water flow rate (mL/min/cm^2)	5	2.2	3.7	11.5	1.4	6
Air resistance (mm of H_2O @ 10.5 fpm or 5.3 cm/s)	33	95	54	16	120	50
DOP penetration 10.5 fpm (%)	0.002	–	–	–	–	–
Weight (g/m^2)	55	140	52	120	75	65
Max temp (°C)	500	500	500	500	500	550

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Ordering Information

Description	Diameter (mm)	Qty/Pk	Catalogue No.
Filters with Binder Resin			
Type AP15	22	100	AP15 022 00
	25	100	AP15 025 00
	42	100	AP15 042 00
	47	100	AP15 047 00
	75	100	AP15 075 00
	90	100	AP15 090 00
	124	50	AP15 124 50
	142	50	AP15 142 50
	257	25	AP15 257 25
	293	25	AP15 293 25
Type AP20	10	100	AP20 010 00
	13	100	AP20 013 00
	22	100	AP20 022 00
	25	100	AP20 025 00
	35	100	AP20 035 00
	42	100	AP20 042 00
	47	100	AP20 047 00
	55	100	AP20 055 00
	75	100	AP20 075 00
	90	100	AP20 090 00
	110	50	AP20 110 50
	124	50	AP20 124 50
	127	50	AP20 127 50
	142	50	AP20 142 50
	257	25	AP20 257 25
	293	25	AP20 293 25
	293	100	APMS 293 00
Type AP25	10	100	AP25 010 00
	13	100	AP25 013 00
	20	100	AP25 020 00
	22	100	AP25 022 00
	25	100	AP25 025 00
	35	100	AP25 035 00
	42	100	AP25 042 00
	47	100	AP25 047 00
	75	100	AP25 075 00
	90	100	AP25 090 00
	124	50	AP25 124 50
	127	50	AP25 127 50
	142	50	AP25 142 50
	257	25	AP25 257 25
	275	20	AP25 275 20
	293	25	AP25 293 25
Filters without binder resin			
Type APFA	25	100	APFA 025 00
	47	100	APFA 047 00
	90	50	APFA 090 50
	124	50	APFA 124 50
Type APFB	25	100	APFB 025 00
	47	100	APFB 047 00
	90	50	APFB 090 50
	124	50	APFB 124 50

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Ordering Information (Continued)

Description	Filter Diameter, mm	Qty/Pk	Catalogue No.
Type APFC	25	100	APFC 025 00
	47	100	APFC 047 00
	90	50	APFC 090 50
	124	50	APFC 124 50
Type APFD	25	100	APFD 025 00
	47	100	APFD 047 00
	90	50	APFD 090 50
	124	50	APFD 124 50
Type APFF	5	100	APFF 025 00
	47	100	APFF 047 00
	90	50	APFF 090 50
	124	50	APFF 124 50
Type AP40	10	100	AP40 010 00
	24	500	AP40 024 05
	37	500	AP40 037 05
	47	500	AP40 047 05
	90	100	AP40 090 05
	142	50	AP40 142 50

To Place an Order or Receive Technical Assistance

For additional information call your nearest Millipore office:
In the U.S. and Canada, call toll-free **1-800-MILLIPORE (1-800-645-5476)**
In the U.S., Canada and Puerto Rico, fax orders to **1-800-MILLIFX (1-800-645-5439)**
On the Internet
http://www.millipore.com
E-mail: **tech_service@millipore.com**

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