

Filtration/Glass-fibre filters

Glass microfibre filters

Glass microfibre filters have a fast filtration and a high loading capacity and particle retention rate. Manufactured without chemical binder from high grade borosilicate glass. (Exception: GF6, GF9). They are suitable for gravity or low suction filtration. Filtration speeds generally very much higher than conventional cellulose papers. Efficient retention of micron size particles. Must be used flat. Ideal for use in flat perforated plate Buchner type funnels (not sintered glass models). Can be used up to 500 °C

Wide range of applications including:

- retention of fine analytical precipitates
- retention of biochemical gelatinous precipitates
- water/air pollution analyses
- as prefilters for membranes
- scintillation counting
- radioimmunoassay.

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1 LLG-Glass microfibre filters, filter circles

Diam. mm	Pore size µm	Filtration time secs.	Weight g / m ²	Thickness mm	PK	Cat. No.
25	1.6	60	52	0.26	100	9.045 860
37	1.6	60	52	0.26	100	7.970 790
47	1.6	60	52	0.26	100	9.045 861
55	1.6	60	52	0.26	100	6.242 633
90	1.6	60	52	0.26	100	6.252 072
110	1.6	60	52	0.26	100	7.970 339
125	1.6	60	52	0.26	100	7.970 033
150	1.6	60	52	0.26	100	9.045 862
25	1.2	100	52	0.26	100	9.045 865
47	1.2	100	52	0.26	100	6.243 711
55	1.2	100	52	0.26	100	6.251 383
70	1.2	100	52	0.26	100	9.045 866
90	1.2	100	52	0.26	100	9.045 867
110	1.2	100	52	0.26	100	9.045 868
47	0.7	310	75	0.45	100	7.970 106
55	0.7	310	75	0.45	100	7.970 742
70	0.7	310	75	0.45	100	6.253 553

Filtration velocity according to Herzberg

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2 Pre-filters, glass microfibre, type 134

The standard glass fibre pre-filter, placed directly on top of the membrane filter. With acrylic latex binder (4 % to 6 %, determined by ashing).

Sartorius Lab Instruments

Type

- A: standard glass fiber filter
- B: extra thick glass fiber filter
- C: binder-free glass fiber filter

Diam. mm	Type	PK	Cat. No.
47	C	500	6.202 135
47	A	500	9.053 709
50	A	500	9.053 710
50	C	500	9.053 770
130	A	50	9.053 717

Other formats are available on request.

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3 Glass microfibre filters, MGB/MGC/MGD/MGF/MG 550-HA

Suitable for analytical and gravimetric analyses, as well as a pre-filter.

Sartorius Lab Instruments

- Hydrophilic
- Liquid Filtration
- Non-sterile

Type	Diam. mm	Weight g / m ²	Thickness mm	Temp. max. °C	PK	Cat. No.
MGB	47	140	0.70	500	50	7.623 804
MGB	50	140	0.70	500	50	6.285 336
MGB	90	140	0.70	500	50	6.281 417
MGB	150	140	0.70	500	50	6.262 966
MGC	47	52	0.26	500	100	7.071 109
MGC	50	52	0.26	500	100	7.400 729
MGC	110	52	0.26	500	100	6.228 307

6. Distillation, separation, filtration Filtration/Glass-fibre filters

1 Glass microfibre filters, grade GF 6, circles

Whatman

Retention rate: 99.97 %
Filtration time according to Gurley: 40 s

Diam. mm	Filtration time secs.	Weight g / m ²	Thickness mm	PK	Cat. No.
55	200*	80	0.35	100	9.068 500
70	200*	80	0.35	100	9.068 501
90	200*	80	0.35	100	9.068 502
110	200*	80	0.35	100	9.068 503
125	200*	80	0.35	100	9.068 504
150	200*	80	0.35	100	9.068 505
185	200*	80	0.35	100	9.068 506
240	200*	80	0.35	100	9.068 507

* to Herzberg

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2 Glass microfibre filters, grade GF/F

Whatman

This ultra-fine filter has a 98 % retention efficiency for particles as small as 0.7 µm in liquids.
Particle retention to 0.7 µm.

Diam. mm	PK	Cat. No.
24	100	9.056 666
25	100	9.056 676
42.5	100	9.056 716
47	100	9.056 726
55	100	9.056 780
70	100	9.056 781
90	25	9.056 782
110	25	9.056 783
125	25	9.056 784
150	25	9.056 785
257	25	9.056 787
570 x 460	25	9.056 805

2



3 Glass microfibre filters, grade GF/B

Whatman

Three times thicker and with greater wet strength than GF/A. Particle retention to 1 µm.
Supplied in pack quantities as outlined below.

Diam. mm	PK	Cat. No.
24	100	9.056 662
25	100	9.056 672
37	100	9.056 692
42.5	100	9.056 712
47	100	9.056 722
55	100	9.056 750
70	100	9.056 751
90	25	9.056 752
110	25	9.056 753
125	25	9.056 754
150	25	9.056 755
185	25	9.056 756
570 x 460	25	9.056 802

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4 Glass microfibre filters, grade GF/C

Whatman

Extremely efficient filter made to retain fine particles and micro organisms.
Particle retention to 1.2 µm.

Diam. mm	PK	Cat. No.
21	100	9.056 643
24	100	9.056 663
25	100	9.056 673
37	100	9.056 693
42,5	100	9.056 713
47	100	9.056 723
50	100	9.056 759
55	100	9.056 760
70	100	9.056 761
90	100	9.056 762
100	100	6.240 479
110	100	9.056 763
125	100	9.056 764
150	100	9.056 765
203 x 254	100	6.287 413
254 x 102	50	9.056 816
570 x 460	25	9.056 803

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Filtration/Glass-fibre filters

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1 Glass fibre papers Type MN GF 3

MACHEREY-NAGEL

Specifications:

Thickness: 0.28 mm
 Weight: 50 g/m²
 Filtration time: 25 s
 Particle retention: 0.6 µm
 Temperature max.: 500 °C
 Binder: without

Diam. mm	PK	Cat. No.
25	100	4.000 602
37	100	4.000 603
45	100	4.000 604
55	100	4.000 605
70	100	6.072 986
90	100	6.203 996
110	100	6.203 327
125	100	4.000 606
150	100	7.400 610
185	100	4.000 607
240	100	4.000 608
270	100	4.000 609

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2 Glass Fibre Papers Type MN 85/70

MACHEREY-NAGEL

Specifications:

Thickness: 0.35 mm
 Weight: 70 g/m²
 Filtration time: 15 s
 Particle retention: 0.6 µm
 Temperature max.: 200 °C
 Binder: organic

Diam. mm	PK	Cat. No.
55	100	6.230 315
70	100	4.000 557
90	100	7.078 750
110	100	6.222 839
125	100	7.059 804
150	100	6.226 331
185	100	4.000 558
240	100	6.226 332
270	100	4.000 559
320	100	4.000 560

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3 Glass fFbre Papers Type MN 85/90

MACHEREY-NAGEL

Can be used up to a maximum of 200 °C. With organic binder.

Specifications

Thickness: 0.4 mm
 Weight: 90 g/m²
 Filtration time: 15 Sec.
 Particle retention: 0.5 µm

Diam. mm	PK	Cat. No.
25	100	4.000 566
37	100	7.058 316
45	100	7.400 141
47	100	6.309 953
55	100	9.049 600
70	100	9.049 601
90	100	9.049 602
110	100	9.049 603
125	100	9.049 604
150	100	9.049 605
185	100	9.049 606
240	100	9.049 607
270	100	4.000 567
320	100	4.000 568

6. Distillation, separation, filtration Filtration/Glass-fibre filters

1 Glass microfibre filters, grade 934-AH

Circles. High retention at high flow rates. Widely used in water pollution monitoring techniques for suspended solids, and is specified in US Method 934-AH. Particle retention to 1.5 µm.

Whatman

Diam. mm	PK	Cat. No.
24	100	9.056 667
47	100	9.056 727
55	100	9.056 730
70	100	9.056 731
90	100	9.056 732
110	100	9.056 733
125	100	9.056 734

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2 Glass microfibre filters, grade GF/A

The general purpose high efficiency glass microfibre filter. Particle retention to 1.6 µm. Supplied in pack quantities as indicated.

Whatman

Diam. mm	PK	Cat. No.
21	100	9.056 641
24	100	9.056 661
25	100	9.056 671
37	100	9.056 691
42,5	100	9.056 711
47	100	9.056 721
50	100	9.056 725
55	100	9.056 740
60	100	9.056 739
70	100	9.056 741
81	100	6.256 482
90	100	9.056 742
110	100	9.056 743
125	100	9.056 744
150	100	9.056 745
254 x 203	100	9.056 811
570 x 460	25	9.056 801

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3 Glass microfibre filters, grade GF/D

Thick filter made from less fibres and retaining around 3 µm particles with a very high loading capacity. Extremely high speed. Particle retention to 2.7 µm.

Whatman

Diam. mm	PK	Cat. No.
25	100	9.056 674
47	100	9.056 724
70	100	9.056 771
90	25	9.056 772
110	25	9.056 773
125	25	9.056 774
150	25	9.056 775
257	25	9.056 777

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4 Quartz microfibre filters, grade QM-A

Manufactured from quartz microfibre to withstand high temperatures. Can be used up to 500 °C.

Whatman

Flow rate: Fast
Retention: Medium
Wet strength: High
Thickness: 0.475 mm

Diam. mm	PK	Cat. No.
25	100	9.056 679
37	100	9.056 699
47	100	9.056 729
55	100	9.056 790
90	100	6.205 852
203 x 254	25	9.056 814

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Filtration/Glass-fibre filters



1 Glass fibre filters without binder

Recommended filters for controlling both air and water pollution.

Hahnemühle

- Made of 100 % borosilicate glass fibres without binders
- Extremely low content in alkali-earth metals
- Chemical stability: It keeps all its properties in contact with acid solutions (except hydrofluoric acid) and basic solutions at moderate concentrations
- Usable as a pre-filter for membranes to prevent the membranes from silting up
- Deposition of (radioactive) aerosols and monitoring of nuclear power plants
- Gravimetric analysis of organic and inorganic impurities in water and waste water according to DIN 38409 and EN 872 (suspended particles)
- Measurement of immission, measurement of dust in air and gases, monitoring of the efficiency of filtration and dedusting, monitoring the combustion air of power plants and of the steel and iron industry
- Measurement of dust release in workplace and production processes and the purification of compartment air
- Stability at high temperatures: It keeps its properties up to 500 °C
- High flow speed and high permeability to air

Type	Dimensions mm	Weight g / m ²	Filtration time secs.	Thickness mm	PK	Cat. No.
GF50	Ø 25	56	19	0.29	100	4.006 614
GF50	Ø 37	56	19	0.29	100	4.006 615
GF50	Ø 47	56	19	0.29	100	4.006 617
GF50	Ø 70	56	19	0.29	100	4.006 620
GF50	Ø 90	56	19	0.29	100	4.006 622
GF50	Ø 125	56	19	0.29	100	4.006 625
GF50	203 x 254	56	19	0.29	100	4.006 627
GF51	Ø 47	140	44	1.00	100	4.006 630
GF52	Ø 47	54	25	0.28	100	4.006 640
GF52	Ø 50	54	25	0.28	100	4.006 641
GF52	Ø 70	54	25	0.28	100	4.006 643
GF52	Ø 90	54	25	0.28	100	4.006 644
GF52	Ø 110	54	25	0.28	100	4.006 645
GF55	Ø 47	75	67	0.40	100	4.006 661
GF55	60 x 90	75	67	0.40	300	6.292 106

Filtration time acc. to Gurley



2 Fibre Filters with inorganic binder

Recommended filters for environmental analysis and controlling both air and water pollution.

Hahnemühle

- Made of 100 % borosilicate glass fibres with binders
- Glass fibre filters capture fine particles down to 1 µm from liquids, in air, gases and aerosols with even 0.3 to 0.5 µm being absorbed
- Extremely low content in alkali-earth metals
- Chemical stability: It keeps all its properties in contact with acid solutions (except hydrofluoric acid) and basic solutions at moderate concentrations
- Stable at temperatures up to 500 °C
- Gravimetric analysis of organic and inorganic impurities in water and waste water according to DIN 38409 and EN 872 (suspended particles)
- Measurement of immission, measurement of dust in air and gases, monitoring of the efficiency of filtration and dedusting, monitoring the combustion air of power plants and of the steel and iron industry
- Measurement of dust release in workplace and production processes and the purification of compartment air
- Measurement of scintillation

Type	Diam. mm	Weight g / m ²	Filtration time secs.	Thickness mm	PK	Cat. No.
GF 6	25	80	40	0.35	100	4.006 668
GF 6	47	80	40	0.35	100	4.006 671
GF 6	50	80	40	0.35	100	4.006 672
GF 6	55	80	40	0.35	100	4.006 673
GF 6	70	80	40	0.35	100	4.006 674
GF 6	90	80	40	0.35	100	4.006 675
GF 6	100	80	40	0.35	100	4.006 676
GF 6	125	80	40	0.35	100	4.006 678
GF 6	150	80	40	0.35	100	4.006 679
GF 6	185	80	40	0.35	100	4.006 680
GF 8	55	75	12	0.35	100	4.006 684
GF 9	50	70	27	0.35	100	4.006 690
GF 9	90	70	27	0.35	100	4.006 693

Filtration time acc. to Gurley