

Guide to laboratory filtration:

Cellulose and glass fiber filters for general laboratory filtration

Select the optimal Whatman™ filter for your application

Symbols used in the selection guide:

- ▲ Also available in prepacked version:
Recommended for filtration of hard to filter samples or to increase flow rate.
- ⊖ Creped surface: increased filtration speed compared to smooth surface.
- μm All values in μm refer to particle retention rating at 98% efficiency.

Ashless Grades (quantitative)

- **Medium precipitate:**
Grade 40 (18 μm), Grade 43 (16 μm)
- **Coarse or gelatinous precipitate:**
Grade 41 (20 μm)
- **Fine precipitate:**
Grade 42 (2.5 μm), Grade 44 (3 μm)

Hardened Ashless Grades (quantitative)

- **Medium precipitate:**
Grade 54 (18 μm)
- **Coarse or gelatinous precipitate:**
Grade 54.1 (22 μm)
- **Fine precipitate:**
Grade 54.2 (2.7 μm)

start here

Is the filter to be ashed during gravimetric analysis and/or do you require an ashless filter?

Qualitative Grades

- **Medium precipitate:**
Grade 1 (11 μm), Grade 2 ▲ (8 μm), Grade 3 (6 μm)
- **Fine precipitate:**
Grade 5 ▲ (2.5 μm), Grade 6 (3 μm)
- **Coarse or gelatinous precipitate:**
Grade 4 (20-25 μm)

Is high wet strength required?

Yes → **Wet Strengthened Grades**

No → **Are you filtering under gravity or vacuum?**

Wet Strengthened Grades

- **For routine samples:**
Grade 91 ⊖ (10 μm) and Grade 93 (10 μm)
- **For coarse or gelatinous precipitate:**
Grade 113 ⊖ ▲ (50 μm) (higher loading), Grade 114 ▲ (25 μm)

Are you filtering under gravity or vacuum?

Gravity → **Is the precipitate to be recovered from the filter?**

Vacuum → **Do you require high loading capacity, very fine retention (<2.7 μm) or a glass microfiber filter?**

Hardened Low Ash Grades (quantitative)

- **Fine precipitate:**
Grade 50 (2.7 μm)
- **Medium precipitate:**
Grade 52 (7 μm)
- **Coarse or gelatinous precipitate:**
Grade 54 (22 μm)

Do you require high loading capacity, very fine retention (<2.7 μm) or a glass microfiber filter?

No → **Are you looking for a membrane pre-filter?**

Yes → **Binder Free Glass Microfiber Filters**

Binder Free Glass Microfiber Filters

- **For routine samples:**
Grade GF/B (1.0 μm), Grade GF/D (2.7 μm)
- **For high particulate samples:**
Multigrade GMF-150 (1 μm)

Are you determining suspended solids in water?

Yes → **Binder Free Glass Microfiber Filters**

No → **Are you filtering under gravity or vacuum?**

Binder Free Glass Microfiber Filters

- **For Standard Methods 2540D:**
use Grade 934-AH™ or Grade 934-AH RTU
- **For EN 872:**
use Grade GF/C™

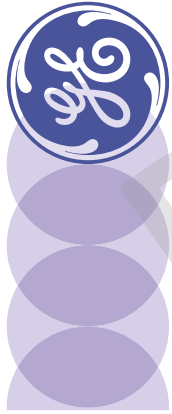
Binder Free Glass Microfiber Grades:

Choose most relevant grade based on characteristics

GF/F	GF/B	GF/C	934-AH	GF/A	GF/D
0.7 μm	1.0 μm	1.2 μm	1.5 μm	1.6 μm	2.7 μm

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Guide to laboratory filtration:

Filtration devices for small volume sample preparation

Select the optimal Whatman™ filter for your application

Step 1: Choose application

Step 2: Choose appropriate filter



Puradisc Aqua 30

12 13



Puradisc FP

3 4 9
11 14

*Notes:
3 and 9: CA



Rezist™

1 4 7 14



Start here

Applications

1. Air venting
2. Automated filtration of samples/
Tablet dissolution testing
3. Biological sample preparation
4. Capillary electrophoresis
5. Difficult to filter samples
(high solid content samples)
6. Filtration of colloidal material
7. HPLC/UHPLC sample preparation
8. Ion-chromatography
9. Filtration of protein containing samples
10. Filtration of nano particles
11. Sterile filtration (use sterile filter
and membrane with pore size 0.2 µm)
12. COD/TOC/DOC
13. Trace metal analysis (ICP/AAS/ICP-MS)
14. UV/VIS analysis

COD = Chemical oxygen demand;
TOC = Total organic carbon;
DOC = Dissolved organic carbon
Note: For guidance only. Only a selection
of applications shown above



Anotop™

3 4 6 7 8
9 10 11 14

*Notes: 0.02 µm



Anotop Plus

4 5 7 10

*Notes: 0.02 µm



Roby

2



Puradisc

3 4 7 9
11 12 13 14

*Notes:
3 & 9: CA, PES, PVDF
12 & 13: PES



Mini-UniPrep™ G2

2 7



Mini-UniPrep

2 7



SPARTAN™

4 7 9 14



GD/X

4 5
7 11 14



GD/XP

4 5 7 8
12 13 14

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