Cytiva Whatman Qualitative Filter Papers

Technical Product Brochure & Specification Matrix

Product Overview

Cytiva's Whatman qualitative filter papers are manufactured from high-quality alpha-cellulose cotton linters and are used in qualitative analytical techniques to determine, identify, and clarify materials. Standard grades have a typical ash content of 0.06%, while wet-strengthened grades contain trace levels of a chemically inert resin to maintain physical durability under wet or pressurized conditions.

Core Technical Features

- **100% Alpha-Cellulose Cotton Linters:** Ensures extreme purity and uniform structural response.
- **Minimal Interferences:** Maintained at a consistent 0.06% typical ash baseline across standard variations.
- **Broad Chemical Compatibility:** Robust resistance against major organic solvents, neutral fluids, and mild acids/bases.
- **Depth-Filtration Matrix:** Traps target molecules throughout the complex fiber matrix, maximizing loading capacity.
- **Versatile Architecture:** Available in flat circles, large sheets, or pre-pleated (fluted) variants.

Technical Specifications Matrix

Grade	Nominal Particle Retention (µm)	Filtration Speed (Herzberg, s)	Nominal Thickness (µm)	Basis Weight (g/m²)	Nominal Air Flow Rate (s)
Grade 1	11	150	180	87	10.5
Grade 2	8	240	190	97	21
Grade 3	6	325	390	185	26
Grade 4	25	37	205	92	3.7
Grade 5	2.5	1420	200	100	94
Grade 6	3	720	180	100	32
Grade 91	10	190	205	71	6
Grade 113	30	28	420	125	2.5
Grade 114	25	38	190	75	4
Grade 595	4–7	80	150	68	12
Grade 597	4–7	140	180	82	19
Grade 598	8–10	60	320	140	8.5
Grade 602 h	< 2	300	160	85	60

Technical Metric Definitions

Nominal Particle Retention in Liquid: The particle size baseline where the matrix reaches ~98% collection efficiency.

Filtration Speed (Herzberg): Time (seconds) taken to filter 100 mL of prefiltered water through a 10 cm² area under a 5 cm constant hydrostatic head.

Basis Weight: Total structural cellulose density expressed as total mass per square meter area (g/m²).

Nominal Air Flow Rate: Time (seconds) required for 100 mL of air to yield full transit through 1 in² of paper medium.