

Qualitative filter papers, standard grades
Whatman (GE Healthcare)



Grade (plain)	Grade (folded)	Application
1	–	Used for routine applications with medium retention and flow rate. This grade covers a wide range of laboratory applications and is frequently used for clarifying liquids. Separations of precipitates such as lead sulphate, calcium oxalate (hot) and calcium carbonate. Used for numerous routine techniques to separate solid foodstuffs from associated liquid or extracting liquid. Teaching grade.
2	2V	Slightly more retentive and more absorbent than Grade 1. In addition to general filtration in the 8 µm particle size range, the extra absorbency is utilised, for example, to hold soil nutrient in plant growth trials.
3	–	Double the thickness of Grade 1. The extra thickness gives increased wet strength and makes this grade highly suitable for use in Büchner funnels. The high absorbency is particularly valuable when the paper is used as a sample carrier.
4	–	Extremely fast filtering with excellent retention of coarse particles and gelatinous precipitates such as ferric hydroxide and aluminium hydroxide. Very useful as a rapid filter for routine clean up of biological fluids or organic extracts during analysis.
5	5V	The maximum degree of fine particle filtration in the qualitative range. Capable of retaining the fine precipitates encountered in chemical analysis. Slow flow rate. Excellent clarifying filter for cloudy suspensions and for water and soil analysis.
6	–	Twice as fast as Grade 5 with similar fine particle retention. Often specified for boiler water analysis applications.
591	591 1/2	A thick filter paper with very high loading capacity for fast filtration of medium-to-coarse precipitates. Offers high absorbency and increased wet strength.
595	595 1/2	Very popular, thin filter paper, medium fast with medium-to-fine particle retention. Used for many routine analytical applications in different industries, (e.g. particle separation from food extracts or filtration of solids from digested environmental samples, e.g. for ICP/AAS analysis).
597	597 1/2	A medium fast filter paper with medium-to-fine particle retention. Used for a wide variety of analytical routine applications in different industries like food testing (e.g. determination of fat content acc. to Section 35 LMBG) or removal of carbon dioxide and turbidity from beverages (e.g. beer analysis).
598	598 1/2	A thick filter paper with high loading capacity. Combines medium retention with medium fast to fast filtration speed.
602 h	602 h 1/2	A dense filter paper for collecting very small particles and removing fine precipitates. Used in sample preparation, e.g. in the beverage industry for residual sugar determination, acidic spectra, refractometric analysis and HPLC.

Grade	Weight	Thickness	Particle retention	Filtration speed
Plain filters				
1	88 g/m ²	0,18 mm	11 µm	150 s (Herzberg)
2	103 g/m ²	0,19 mm	8 µm	240 s (Herzberg)
3	187 g/m ²	0,39 mm	6 µm	325 s (Herzberg)
4	96 g/m ²	0,20 mm	20 - 25 µm	37 s (Herzberg)
5	98 g/m ²		2,5 µm	1420 s (Herzberg)
6	105 g/m ²	0,18 mm	3 µm	715 s (Herzberg)
591	161 g/m ²	0,35 mm	7 - 12 µm	45 s (Herzberg)
595	68 g/m ²	0,15 mm	4 - 7 µm	80 s (Herzberg)
597	85 g/m ²	0,18 mm		140 s (Herzberg)
602 h	84 g/m ²	0,16 mm		<2 µm
Folded filters				
2V	103 g/m ²	0,19 mm	8 µm	240 s (Herzberg)
595 ½	68 g/m ²	0,15 mm	4 - 7 µm	80 s (Herzberg)
597 ½	85 g/m ²	0,18 mm		140 s (Herzberg)
602 h ½	84 g/m ²	0,16 mm		<2 µm

Grade	Size (mm)	Pk	Cat. No.
Plain filters			
1	42,5	100	512-1000
1	47	100	516-3104
1	55	100	512-1001
1	70	100	512-1002
1	85	100	516-0593
1	90	100	512-1003
1	110	100	512-1004

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