

# 16 LABORATORY FILTER PAPERS

## QUALITATIVE PAPERS

The extremely pure filter paper grades 120H to 5 and 292, 292a are made of pure cotton pulp. All other grades are made of cellulose with an alpha content of nearly 100%. The ash content for grades 120H to 5 is approx. 0.06%. For all other grades it is below 0.1%.

### HIGH PURITY HARDENED FILTER PAPERS

Grade	Basis Weight g/m <sup>2</sup>	Filtration Velocity s/10 ml	Herzberg	Herzberg	Typical Pore Size µm
			s/100 ml	ml/min	
<b>Ederol</b>					
11/N	80	10	60	900	12 - 15
12/N	80	25	150	400	8 - 12
13/N	80	60	240	250	5 - 8
14/N	80	150	750	80	2 - 3
<b>Filtrak</b>					
1288	84	10	70	850	12 - 15
1289	84	20	160	375	8 - 12
1290	84	100	1200	50	3 - 5
1291	84	180	2500	25	2 - 3
1292	84	50	400	130	5 - 8

### HIGH PURITY PAPERS

Grade	Basis Weight g/m <sup>2</sup>	Filtration Velocity s/10 ml	Herzberg	Herzberg	Typical Pore Size µm
			s/100 ml	ml/min	
<b>Filtrak</b>					
292	87	50	500	120	5 - 8
292 a	97	60	650	90	5 - 8
293	80	300	4000	15	1 - 2
<b>Ederol</b>					
15	65	25	170	350	8 - 12
20	120	11	120	500	12 - 15
<b>Munktell</b>					
5	130	9	60	1000	> 20
3	90	11	85	700	> 10
150	90	13	130	450	8 - 10
1F	80	29	300	200	5 - 6
110	80	48	480	125	4 - 5
106	100	75	750	80	3 - 4
120H	80	160	1500	40	1 - 2

### STANDARD SIZES Filter Circles, Ø in mm

45 50 55 70 90 110 125 150 185 240 270 320 385 450 500

### STANDARD SIZES Folded Filters, Ø in mm

90 110 125 150 185 240 270 320 385 450 500

Other sizes and sheet dimensions available upon request.

For ordering information please refer to the enclosed grade index.



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## QUALITATIVE PAPERS

Grade	Filtration Properties	Applications
<b>Ederol / Filtrak</b>		
11/N 1288	fast filtering, wide pores, hardened	for coarse and voluminous precipitates such as iron- aluminum- and chromium hydroxide; Si-determination in steel and pig iron analysis
12/N 1289	medium fast filtering, medium wide pores, hardened	typical grades for quantitative tasks, coarser precipitates such as lead-, iron- and silver sulphide; alcali carbonates; beer and malt analysis
13/N 1292	medium to slowly filtering, medium tight, hardened	fast filtration of fine precipitates such as calcium oxalate, magnesium ammonium phosphate, coarser forms of barium sulphate
14/N 1291	very slowly filtering, fine pores, ashless, hardened	fine-grained precipitates such as barium sulphate, metastannic acid, cuprous oxide
1290	slowly filtering, narrow pores, hardened	filtration of fine precipitates such as nickel sulphide, lead dioxide, calcium fluoride
15	medium fast filtering, medium large pores, thin, hardened	thin filter paper for general laboratory work, filtration of water samples
20	fast filtering, wide pores, slightly hardened	strong paper, particularly used in form of folded filters, for coarse, voluminous precipitates
293	particularly slowly filtering, particularly fine pores	for extremely difficult filtration conditions and particularly fine precipitates, common type for wine clarification
<b>Munktell / Filtrak</b>		
5	fast filtering, wide pores	for coarse and voluminous precipitates such as iron- aluminum- and chromium hydroxide; Si-determination in steel and pig iron analysis
3	fast filtering, wide pores	for coarse and voluminous precipitates such as iron- aluminum- and chromium hydroxide; Si-determination in steel and pig iron analysis
150	medium fast filtering medium large pores	typical grades for quantitative tasks, coarser precipitates such as lead-, iron- and silver sulphide; alcali carbonates; calcium oxalate
1F	medium to slowly filtering, medium tight	fast filtration of fine precipitates such as calcium oxalate, magnesium ammonium phosphate, coarser forms of barium sulphate
110 292	medium to slowly filtering, medium tight	fast filtration of fine precipitates such as calcium oxalate, magnesium ammonium phosphate, coarser forms of barium sulphate
106 292a	slowly filtering, narrow pores	filtration of fine precipitates such as lead dioxide, calcium fluoride, nickel sulphide, zinc sulphide
120 H	very slowly filtering narrow pores	for very fine precipitates such as barium sulphate, metastannic acid, cuprous oxide

# 18 LABORATORY FILTER PAPERS

## GENERAL PURPOSE FILTER PAPERS

These papers are made for general purpose filtration. Their ash content is so low that they can be used for ordinary qualitative filtration work. They are filter papers for a variety of different applications with different basis weights. The development of these papers was keyed particularly to their final use. This is documented by their different surface structures. The papers are made of very pure cellulose with a high alpha cellulose content. The average ash content of these filter papers is 0.1%



## WETSTRENGTHENED PAPERS

Grade	Basis Weight g/m <sup>2</sup>	Surface	Filtration Velocity s/10 ml	Herzberg s/100 ml	Herzberg ml/min	Typical Pore Size µm
<b>Ederol / Filtrak</b>						
3 hw	65	plain	20	140	430	8 - 12
3 h	65	plain	35	330	180	7 - 10
4 b	75	plain	20	165	360	8 - 12
6	80	plain	15	70	850	10 - 13
34/N	60	creped	4	40	1500	> 20
1602/N	70	creped	5	50	1200	> 15
53	70	embossed	18	150	400	8 - 12
603/N	75	creped	8	65	925	> 15
55/N	75	creped	14	120	500	10 - 13
37/N	135	creped	4	40	1500	> 20
39/N	180	creped	4	40	1500	> 20
<b>Munktell</b>						
1001	90	plain	110	1200	50	2 - 3
1002	90	plain	28	240	250	6 - 10
1003	90	plain	10	80	800	12 - 15

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ANALYTICAL		GENERAL PURPOSE			
quantitative		qualitative	qualitative-technical		
ashless	ashless hardened	high purity			
005		5	37/N	39/N	← gel-type
00R 388 ●	1/N ●	3	1288 11/N	1602/N	← coarse crystalline
				34/N 603/N 1003	
	00M 389 ○	2/N ○	150 1F	6 53 3 hw 1002 4 b	← medium crystalline
	00K 00A 392 ● 006 390 ●	3/N ●	292 a 110 292 106	13/N 3 h 1290 1001	← fine crystalline
	391 ● 00H 393 ●	4/N ●	120H 293	14/N 1291	← very fine crystalline

  

●	<b>black spot</b> fast filtering, wide pores, soft, lose structure ashless
○	<b>white spot</b> medium fast filtering, medium pores, ashless
●	<b>red spot</b> medium fast filtering, medium tight, ashless
●	<b>green spot</b> slowly filtering, narrow pores, tight, ashless
●	<b>blue spot</b> very slowly filtering, fine pores, very tight, ashless
●	<b>purple spot</b> particularly slowly filtering, very fine pores, very tight, ashless

LABORATORY FILTRATION

