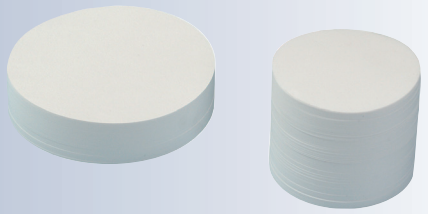
LABORATORY FILTER PAPER

BOECO
Germany

BOECO FILTER PAPERS

QUANTITATIVE FILTERS

quantitative ashless filter papers are recommended for quantitative analysis. As quantitative analysis requires a high purity, these filters are being washed out with acid



388 - black spot - fast filtering, wide pores, ashless hardened

For coarse and voluminous precipitates such as iron-aluminium and chromium hydroxide; Si-determination in steel and pig iron analysis

Basis weight:	84 g/m^2
Filtration velocity:	10 ml / 10 seconds
Typical pore size:	12 - 15 µm
Similar to:	S&S 589/1, M-N 640w

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.101.055	388 / Filter discs. Black dot	100
70 mm	FTR 3.101.070	388 / Filter discs. Black dot	100
90 mm	FTR 3.101.090	388 / Filter discs. Black dot	100
110 mm	FTR 3.101.110	388 / Filter discs. Black dot	100
125 mm	FTR 3.101.125	388 / Filter discs. Black dot	100
150 mm	FTR 3.101.150	388 / Filter discs. Black dot	100
185 mm	FTR 3.101.185	388 / Filter discs. Black dot	100
240 mm	FTR 3.101.240	388 / Filter discs. Black dot	100

389 - white spot - medium fast filtering, medium wide pores, ashless hardened

Typical grade for quantitative tasks, coarser precipitates, such as lead-, iron and silver sulphide alcali carbonates, food stuff and soil analysis

Basis weight:	84 g/m^2
Filtration velocity:	10 ml / 20 seconds
Typical pore size:	8 - 12 µm
Similar to:	Whatman 41, S&S 589/2, M-N 640m

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.102.055	389 / Filter discs. White dot	100
70 mm	FTR 3.102.070	389 / Filter discs. White dot	100
90 mm	FTR 3.102.090	389 / Filter discs. White dot	100
110 mm	FTR 3.102.110	389 / Filter discs. White dot	100
125 mm	FTR 3.102.125	389 / Filter discs. White dot	100
150 mm	FTR 3.102.150	389 / Filter discs. White dot	100
185 mm	FTR 3.102.185	389 / Filter discs. White dot	100
240 mm	FTR 3.102.240	389 / Filter discs. White dot	100

392 - red spot - medium to slowly filtering, medium tight, ashless hardened

Fast filtration of fine precipitates such as calcium oxalate, magnesium ammonium phosphate, coarser forms of barium sulphate

Basis weight	84 g/m^2
Filtration velocity:	10 ml / 50 seconds
Typical pore size:	5 - 8 µm
Similar to	Whatman 43, S&S 589/5, M-N 640md

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.105.055	392 / Filter discs. Red dot	100
70 mm	FTR 3.105.070	392 / Filter discs. Red dot	100
90 mm	FTR 3.105.090	392 / Filter discs. Red dot	100
110 mm	FTR 3.105.110	392 / Filter discs. Red dot	100
125 mm	FTR 3.105.125	392 / Filter discs. Red dot	100
150 mm	FTR 3.105.150	392 / Filter discs. Red dot	100
185 mm	FTR 3.105.185	392 / Filter discs. Red dot	100
240 mm	FTR 3.105.240	392 / Filter discs. Red dot	100

390 - green spot - slowly filtering, narrow pores, ashless hardened

Filtration of fine precipitates such as lead dioxide, calcium fluoride nickel sulphide, zinc sulphide

Basis weight:	84 g/m^2
Filtration velocity:	10 ml / 100 seconds
Typical pore size:	3 - 5 µm
Similar to:	Whatman 40, S&S 589/6, M-N 640d

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.103.055	390 / Filter discs. Green dot	100
70 mm	FTR 3.103.070	390 / Filter discs. Green dot	100
90 mm	FTR 3.103.090	390 / Filter discs. Green dot	100
110 mm	FTR 3.103.110	390 / Filter discs. Green dot	100
125 mm	FTR 3.103.125	390 / Filter discs. Green dot	100
150 mm	FTR 3.103.150	390 / Filter discs. Green dot	100
185 mm	FTR 3.103.185	390 / Filter discs. Green dot	100
240 mm	FTR 3.103.240	390 / Filter discs. Green dot	100

391 - blue spot - very slowly filtering, fine pores, ashless hardened

Fine-grained precipitates such as barium sulphate, metannic acid, cupros oxide

Basis weight:	84 g/m^2
Filtration velocity:	10 ml / 180 seconds
Typical pore size:	2 - 3 µm
Similar to:	Whatman 44, S&S 589/3, M-N 640de

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.104.055	391 / Filter discs. Blue dot	100
70 mm	FTR 3.104.070	391 / Filter discs. Blue dot	100
90 mm	FTR 3.104.090	391 / Filter discs. Blue dot	100
110 mm	FTR 3.104.110	391 / Filter discs. Blue dot	100
125 mm	FTR 3.104.125	391 / Filter discs. Blue dot	100
150 mm	FTR 3.104.150	391 / Filter discs. Blue dot	100
185 mm	FTR 3.104.185	391 / Filter discs. Blue dot	100
240 mm	FTR 3.104.240	391 / Filter discs. Blue dot	100

393 - purple spot - particularly slow filtering, especially fine pores, ashless hardened

For extremely difficult filtration conditions and particularly fine precipitates

Basis weight:	100 g/m^2
Filtration velocity:	10 ml / 250 seconds
Typical pore size:	1 - 2 µm
Similar to:	Whatman 42

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.127.055	393 / Filter discs. Purple dot	100
70 mm	FTR 3.127.070	393 / Filter discs. Purple dot	100
90 mm	FTR 3.127.090	393 / Filter discs. Purple dot	100
110 mm	FTR 3.127.110	393 / Filter discs. Purple dot	100
125 mm	FTR 3.127.125	393 / Filter discs. Purple dot	100
150 mm	FTR 3.127.150	393 / Filter discs. Purple dot	100
185 mm	FTR 3.127.185	393 / Filter discs. Purple dot	100
240 mm	FTR 3.127.240	393 / Filter discs. Purple dot	100

QUALITATIVE FILTERS

Grade 1288 - wide-pored, spongy structure, soft, very high rate of filtration

coarse-flocculent and bulky precipitates, in particular hydroxides of iron, aluminium and chromium; sulphides of copper, bismuth, cobalt and iron; various organic metal precipitates;
determination of silicon in the analysis of steel and pig iron, etc.

Basis weight	84 g/m^2
Filtration velocity:	10 ml / 10 seconds
Typical pore size:	12 - 15 µm
Similar to:	Whatman 4, S&S 604, M-N 617

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.206.055	1288 / Filter discs.	100
70 mm	FTR 3.206.070	1288 / Filter discs.	100
90 mm	FTR 3.206.090	1288 / Filter discs.	100
110 mm	FTR 3.206.110	1288 / Filter discs.	100
125 mm	FTR 3.206.125	1288 / Filter discs.	100
150 mm	FTR 3.206.150	1288 / Filter discs.	100
185 mm	FTR 3.206.185	1288 / Filter discs.	100
240 mm	FTR 3.206.240	1288 / Filter discs.	100

Grade 1289 - plain, medium wide pores, medium fast

commonly used grade for analytical work, coarser precipitates like sulphides of silver, arsenic, antimony, cadmium, lead, iron and magnes,; lead chromate, ammonium molybdate, alkaline earth carbonates etc.

Basis weight	84 g/m^2
Filtration velocity:	10 ml / 20 seconds
Typical pore size:	8 - 12 µm
Similar to:	S&S 597, M-N 616

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.207.055	1289 / Filter discs.	100
70 mm	FTR 3.207.070	1289 / Filter discs.	100
90 mm	FTR 3.207.090	1289 / Filter discs.	100
110 mm	FTR 3.207.110	1289 / Filter discs.	100
125 mm	FTR 3.207.125	1289 / Filter discs.	100
150 mm	FTR 3.207.150	1289 / Filter discs.	100
185 mm	FTR 3.207.185	1289 / Filter discs.	100
240 mm	FTR 3.207.240	1289 / Filter discs.	100

Grade 1291 - fine pored, very dense, very low rate of filtration

fine-grained precipitates cold-precipitated barium sulphate, meta-stannic acid

Basis weight	84 g/m^2
Filtration velocity:	10 ml / 180 seconds
Typical pore size:	2 - 3 µm
Similar to:	S&S 602 h, M-N 619 de

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.209.055	1291 / Filter discs.	100
70 mm	FTR 3.209.070	1291 / Filter discs.	100
90 mm	FTR 3.209.090	1291 / Filter discs.	100
110 mm	FTR 3.209.110	1291 / Filter discs.	100
125 mm	FTR 3.209.125	1291 / Filter discs.	100
150 mm	FTR 3.209.150	1291 / Filter discs.	100
185 mm	FTR 3.209.185	1291 / Filter discs.	100
240 mm	FTR 3.209.240	1291 / Filter discs.	100

Grade 292 - medium to slowly filtering, medium tight

fast filtration of fine precipitates such as calcium oxalate, magnesium ammonium phosphate, coarser forms of barium sulphate

Basis weight	87 g/m^2
Filtration velocity:	10 ml / 45 seconds
Typical pore size:	5 - 8 µm
Similar to:	Whatman 1, S&S 593, M-N 616 md

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.205.055	292 / Filter discs.	100
70 mm	FTR 3.205.070	292 / Filter discs.	100
90 mm	FTR 3.205.090	292 / Filter discs.	100
110 mm	FTR 3.205.110	292 / Filter discs.	100
125 mm	FTR 3.205.125	292 / Filter discs.	100
150 mm	FTR 3.205.150	292 / Filter discs.	100
185 mm	FTR 3.205.185	292 / Filter discs.	100
240 mm	FTR 3.205.240	292 / Filter discs.	100

Grade 292a - slowly filtering, narrow pores

filtration of fine precipitates such as lead dioxide, calcium fluoride, nickel sulphide, zinc sulphide

Basis weight	97 g/m^2
Filtration velocity:	10 ml / 60 seconds
Typical pore size:	5 - 8 µm
Similar to:	Whatman 2, S&S 2095

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.215.055	292a / Filter discs.	100
70 mm	FTR 3.215.070	292a / Filter discs.	100
90 mm	FTR 3.215.090	292a / Filter discs.	100
110 mm	FTR 3.215.110	292a / Filter discs.	100
125 mm	FTR 3.215.125	292a / Filter discs.	100
150 mm	FTR 3.215.150	292a / Filter discs.	100
185 mm	FTR 3.215.185	292a / Filter discs.	100
240 mm	FTR 3.215.240	292a / Filter discs.	100

GENERAL PURPOSE, QUALITATIVE-TECHNICAL FILTERS

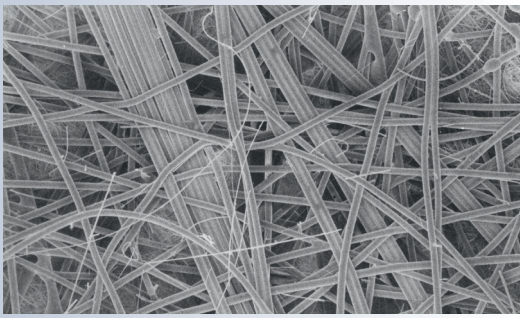
Grade 3 hw - medium rate of filtration, increased wet strength, plain

This paper grade is generally used for analytical and technical purposes., as Clarification, Analytical Sample Preparation, Particle Analysis

Basis weight	65 g/m^2
Filtration velocity:	10 ml / 20 seconds
Typical pore size:	8 - 12 µm
Similar to:	Whatman Student Grade, S&S 595, 3002 M-N 615

Diam.	Code	Grade/Description	Pack of
55 mm	FTR 3.303.055	3 hw / Filter discs.	100
70 mm	FTR 3.303.070	3 hw / Filter discs.	100
90 mm	FTR 3.303.090	3 hw / Filter discs.	100
110 mm	FTR 3.303.110	3 hw / Filter discs.	100
125 mm	FTR 3.303.125	3 hw / Filter discs.	100
150 mm	FTR 3.303.150	3 hw / Filter discs.	100
185 mm	FTR 3.303.185	3 hw / Filter discs.	100
240 mm	FTR 3.303.240	3 hw / Filter discs.	100

GLASS MICROFIBRE FILTERS



MICRO-GLASS FIBRE FILTERS BINDER FREE UNDER A RASTER ELECTRON MICROSCOPE

Grade MGA

Highly efficient for general laboratory filtration, clarification of buffer and reagent solutions corresponds to many international standards for air and water pollution monitoring

Basis weight	52 g/m^2
Thickness	0,25 mm
Particle retention in liquids:	1,6 µm
Pressure drop:	33 mbar (a=10 m2, flow velocity 40 cm/sec.)
Finish:	binder-free
Similar to:	Whatman GF/A, S&S GF 50, M-N GF 1

Diam.	Code	Grade/Description	Pack of
25 mm	FTR 3.1101.025	MGA / Glass Microfibre discs.	100
47 mm	FTR 3.1101.047	MGA / Glass Microfibre discs.	100
50 mm	FTR 3.1101.050	MGA / Glass Microfibre discs.	100
55 mm	FTR 3.1101.055	MGA / Glass Microfibre discs.	100
70 mm	FTR 3.1101.070	MGA / Glass Microfibre discs.	100
90 mm	FTR 3.1101.090	MGA / Glass Microfibre discs.	100
100 mm	FTR 3.1101.100	MGA / Glass Microfibre discs.	100
110 mm	FTR 3.1101.110	MGA / Glass Microfibre discs.	100
125 mm	FTR 3.1101.125	MGA / Glass Microfibre discs.	100
150 mm	FTR 3.1101.150	MGA / Glass Microfibre discs.	100
180 mm	FTR 3.1101.180	MGA / Glass Microfibre discs.	100

Grade MGC

Standard filter for the clarification and monitoring of waste water and water, scintillation counting on the filter, cell harvesting, hydrocarbon analysis where cellulose fibres a nuisance as by DIN EN 872

Basis weight	52 g/m^2
Thickness	0,26 mm
Particle retention in liquids:	1,2 µm
Pressure drop:	54 mbar (a=10 m2, flow velocity 40 cm/sec.)
Finish:	binder-free
Similar to:	Whatman GF/C, S&S GF 52, M-N GF 3

Diam.	Code	Grade/Description	Pack of
25 mm	FTR 3.1103.025	MGC / Glass Microfibre discs.	100
47 mm	FTR 3.1103.047	MGC / Glass Microfibre discs.	100
50 mm	FTR 3.1103.050	MGC / Glass Microfibre discs.	100
55 mm	FTR 3.1103.055	MGC / Glass Microfibre discs.	100
70 mm	FTR 3.1103.070	MGC / Glass Microfibre discs.	100
90 mm	FTR 3.1103.090	MGC / Glass Microfibre discs.	100
100 mm	FTR 3.1103.100	MGC / Glass Microfibre discs.	100
110 mm	FTR 3.1103.110	MGC / Glass Microfibre discs.	100
125 mm	FTR 3.1103.125	MGC / Glass Microfibre discs.	100
150 mm	FTR 3.1103.150	MGC / Glass Microfibre discs.	100
180 mm	FTR 3.1103.180	MGC / Glass Microfibre discs.	100

CELLULOSE EXTRACTION THIMBLES

for Soxhlet extraction

Grade 30

extraction thimbles made of cellulose, are perfect sample reservoirs for Soxhlet extraction in quality control, research and/or analysis. Solvent extraction from solids and semi-solids can be carried out easily and reliably. The thimbles fit Soxhlet extractors and automatic extractors.

Material	Cellulose
Shape	hollow cylinders with round bottom
Max. temp. res.:	120 °C

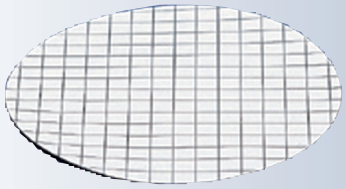
ID x H	Code	Grade/Description	Pack of
22 x 80 mm[1.]	FTR 1201.022080	30/extraction thimbles	25
25 x 80 mm	FTR 1201.025080	30/extraction thimbles	25
25 x 100 mm[1.]	FTR 1201.025100	30/extraction thimbles	25
26 x 60 mm[3.]	FTR 1201.026060	30/extraction thimbles	25
28 x 22 mm[4.]	FTR 1201.028022	30/extraction thimbles	25
30 x 80 mm	FTR 1201.030080	30/extraction thimbles	25
33 x 80 mm[2.,3.,5.]	FTR 1201.033080	30/extraction thimbles	25
33 x 94 mm[1.]	FTR 1201.033094	30/extraction thimbles	25
33 x 118 mm	FTR 1201.033118	30/extraction thimbles	25
43 x 123 mm[1.]	FTR 1201.043123	30/extraction thimbles	25

1. fits Büchi B-811
2. fits Gerhardt Soxtherm Automatic
3. fits Foss Tecator System
4. fits Foss Soxtec 2050
5. fits Velp Extractors SER 148

GRIDDED MEMBRANE FILTERS

Sartorius® brand

Sterile, individually packed membrane filters have long become standard for routine microbiological quality control because of the user benefits they offer. They are ready-to-use and save preparatory time, they avoid the possibility of contamination of remaining filters in opened packs and are GLP conform, having filter identification and lot number printed on each individual envelope.



Material:	Cellulose nitrate, white with black grid
Reaction to water:	Hydrophilic
Grid size:	3,1 x 3.1 mm
Pore size:	**0,45 micron**
Diameter :	47 mm
Presentation:	Sterile, individually packed

Diam.	Code	Pack of
47 mm	SAR 11406-47ACR	1000 (10 x 100)

Material:	Cellulose nitrate, white with black grid
Reaction to water:	Hydrophilic
Grid size:	3,1 x 3.1 mm
Pore size:	**0,2 micron**
Diameter :	47 mm
Presentation:	Sterile, individually packed

Diam.	Code	Pack of
47 mm	SAR 11407-47ACR	1000 (10 x 100)

SYRINGE FILTERS

Sartorius® brand

Cellulose acetate syringe filters are used for the filtration of volumes up to 100 ml. The syringe filters units are ideal for applications requiring maximum sample recovery such as: Tissue culture preparation, sterile filtration and clarification of biological fluids, specimen solutions, protein and enzyme filtration, hybridization buffers and other aqueous solutions.

Specification:

Pore size	0,20 µm		0,45 µm
Color code	blue		yellow
Membrane		Cellulose Acetate	
Housing		Cyrolite	
Diameter		28 mm	
Filter aerea		6,2 cm^2	
Idle Volume		0,1 ml	
Bubble Point	3,2 bar		1,6 bar
Max. Pressure		4,5 bar	
Burst Strength		6 bar	
Max. temperature		50 °C	
Flow Rate (water)	60 ml/min		160 ml/min
Hydrophilic		yes	
Inlet		Luer lock	
Outlet		Luer lock	
Presentation		sterile, individually packed	

Pore size	Code	Color Code	Pack of
0,20 µm	SAR 16534-K	blue	50
0,45 µm	SAR 16555-K	yellow	50