

#### 1 Insertion tubes

DURAN® tubing. With cone, enclosing a bent insertion tube with tubing connection.  
 Insertion tube diameter x length: 6mm x 200mm.

Lenz

Cone	PK	Cat. No.
NS		
14/23	1	9.012 303

1



#### LLG-Filter paper, qualitative grades

Made from 100 % cellulose.  
 Ash content 0,06 %.  
 Filtration speed according to DIN 53137.  
 Capacity of separation according to DIN 53135.

#### LLG-Filter paper, plain disc, qualitative

**NEW!**

Fast

Dia. mm	Filtration time secs.	PK	Cat. No.
90	10	100	9.045 830
110	10	100	9.045 831
125	10	100	9.045 832
150	10	100	9.045 833
185	10	100	9.045 834

2



9.045 830

#### LLG-Filter paper, qualitative, filter circles

**NEW!**

Medium speed

Dia. mm	Filtration time secs.	PK	Cat. No.
42.5	88	100	9.045 800
47.0	88	100	9.045 801
55.0	88	100	9.045 802
70.0	88	100	9.045 803
90.0	88	100	9.045 804
110.0	88	100	9.045 805
125.0	88	100	9.045 806
150.0	88	100	9.045 807
185.0	88	100	9.045 808
240.0	88	100	9.045 809

3



9.045 800

#### LLG-Filter paper, qualitative, sheet

**NEW!**

Medium speed

Dimensions mm	Filtration time secs.	PK	Cat. No.
460 x 570	88	100	9.045 810

#### 4 LLG-Filter paper, qualitative, circles

**NEW!**

Medium speed

Dia. mm	Filtration time secs.	PK	Cat. No.
42.5	50	100	9.045 820
90.0	50	100	9.045 821
110.0	50	100	9.045 822

4



## Filtration/Filter paper, qualitative



### 1 LLG-Filter paper, qualitative, folded filters

**NEW!**

Medium speed

Dia. mm	Filtration time secs.	PK	Cat. No.
125.0	50	100	9.045 825
150.0	50	100	9.045 826
185.0	50	100	9.045 827

### Filter paper, qualitative, folded filters

*Hahнемühle*

Type	Weight g / m <sup>2</sup>	Dia. mm	PK	Cat. No.
FP 593	84	70	100	4.006 249
FP 593	84	90	100	4.006 250
FP 593	84	110	100	4.006 251
FP 593	84	125	100	4.006 252
FP 593	84	150	100	4.006 253
FP 593	84	185	100	4.006 254
FP 593	84	200	100	4.006 255
FP 593	84	240	100	4.006 256
FP 593	84	270	100	4.006 257
FP 593	84	320	100	4.006 258
FP 595	68	70	100	4.006 259
FP 595	68	90	100	4.006 260
FP 595	68	110	100	4.006 261
FP 595	68	125	100	4.006 262
FP 595	68	150	100	4.006 263
FP 595	68	185	100	4.006 264
FP 595	68	200	100	4.006 265
FP 595	68	240	100	4.006 266
FP 595	68	270	100	4.006 267
FP 595	68	320	100	4.006 268
FP 595	68	385	100	4.006 269
FP 597	81	70	100	4.006 270
FP 597	81	90	100	4.006 271
FP 597	81	110	100	4.006 272
FP 597	81	125	100	4.006 273
FP 597	81	150	100	4.006 274
FP 597	81	185	100	4.006 275
FP 597	81	200	100	4.006 276
FP 597	81	240	100	4.006 277
FP 597	81	270	100	4.006 278
FP 597	81	320	100	4.006 279
FP 597	81	385	100	4.006 280
FP 598	140	70	100	4.006 281
FP 598	140	90	100	4.006 282
FP 598	140	110	100	4.006 283
FP 598	140	125	100	4.006 284
FP 598	140	150	100	4.006 285
FP 598	140	185	100	4.006 286
FP 598	140	200	100	4.006 287
FP 598	140	240	100	4.006 288
FP 598	140	320	100	4.006 289



### 2 Filter paper, qualitative, Grade 3 hw, circles and sheets

*Sartorius Stedim*

Material: alpha cellulose (95%)  
 Properties: medium speed filtration, thin  
 Filtration time: 15 to 25 secs.  
 Surface weight: 65g/m<sup>2</sup>  
 Ash content: < 0.1%

Dia. mm	PK	Cat. No.
55	100	9.049 420
70	100	9.049 421
90	100	9.049 422
110	100	9.049 423
125	100	9.049 424
150	100	9.049 425
185	100	9.049 426
240	100	9.049 427
270	100	9.049 428
320	100	9.049 429
385	100	9.049 457
580 x 580	100	9.049 458

Other diameters/formats are available on request.

## 6. Distillation, Separation, Filtration Filtration/Filter paper, qualitative

### 1 Filter paper, qualitative, Grade 3 hw, folded filters

Sartorius Stedim

Dia. mm	PK	Cat. No.
90	100	9.049 401
110	100	9.049 402
125	100	9.049 403
150	100	9.049 404
185	100	9.049 405
240	100	9.049 406
270	100	9.049 407
320	100	9.049 408
385	100	9.049 409

Other diameters/formats are available on request.



### 2 Filter paper, qualitative, Grade 1288, folded filters

Very smooth surface, very strong, with enhanced wet strength. Chemically stable against acids and weak alkalis, especially suited to vacuum and pressure filtration.

Sartorius Stedim

Properties: Rapid filtration, coarse porosity  
 Filtration time: 6 to 14 secs.  
 Surface weight: 84g/m<sup>2</sup>

Dia. mm	PK	Cat. No.
185	100	9.049 485
125	100	9.049 483
240	100	9.049 486
270	100	9.049 487

Other diameters/formats are available on request.



### 3 Filter paper, qualitative, type MN 615, circles

Medium speed, medium smooth.

MACHERY-NAGEL

Dia. mm	Filtration time secs.	PK	Cat. No.
55	20 to 25	100	9.047 500
70	20 to 25	100	9.047 501
90	20 to 25	100	9.047 502
110	20 to 25	100	9.047 503
125	20 to 25	100	9.047 504
150	20 to 25	100	9.047 505
185	20 to 25	100	9.047 506
240	20 to 25	100	9.047 507



### 4 Filter paper, qualitative, type MN 615 1/4, filter circles

Medium speed, medium smooth.

MACHERY-NAGEL

Dia. mm	Filtration time secs.	PK	Cat. No.
55	20 to 25	100	9.048 500
70	20 to 25	100	9.048 501
90	20 to 25	100	9.048 502
110	20 to 25	100	9.048 503
125	20 to 25	100	9.048 504
150	20 to 25	100	9.048 505
185	20 to 25	100	9.048 506
240	20 to 25	100	9.048 507
270	20 to 25	100	9.048 508
320	20 to 25	100	9.048 509
385	20 to 25	100	9.048 510
500	20 to 25	100	9.048 511



## Filtration/Filter paper, qualitative

1



### 1 Filter paper, qualitative, type MN 612 1/4, filter circles

Fast, grained.

MACHEREY-NAGEL

Dia. mm	Filtration time secs.	PK	Cat. No.
90	10	100	9.048 302
110	10	100	9.048 303
125	10	100	9.048 304
150	10	100	9.048 305
185	10	100	9.048 306
240	10	100	9.048 307
270	10	100	9.048 308
320	10	100	9.048 309
385	10	100	9.048 310
500	10	100	9.048 311

2



### 2 Filter paper, qualitative, type MN 614 1/4, folded filters

Medium-fast, grained.

MACHEREY-NAGEL

Dia. mm	Filtration time secs.	PK	Cat. No.
90	20 to 25	100	9.048 402
110	20 to 25	100	9.048 403
125	20 to 25	100	9.048 404
150	20 to 25	100	9.048 405
185	20 to 25	100	9.048 406
240	20 to 25	100	9.048 407

3



### 3 Filter paper, qualitative, type MN 617 1/4, folded filters

Fast, medium smooth.

MACHEREY-NAGEL

Dia. mm	Filtration time secs.	PK	Cat. No.
90	7 to 9	100	9.048 702
110	7 to 9	100	9.048 703
125	7 to 9	100	9.048 704
150	7 to 9	100	9.048 705
185	7 to 9	100	9.048 706
240	7 to 9	100	9.048 707

4



### 4 Filter paper, Grade number 1

Circles and sheets. Qualitative. The most widely used grade of filter paper.

GE Healthcare

Flowrate: Medium/Fast  
 Retention: Medium  
 Wet strength: Low  
 Thickness: 0.18mm  
 Ash: 0.06%

Dia. mm	PK	Cat. No.
20	400	9.048 942
25	400	9.048 943
30	400	9.048 944
32	100	9.048 937
42.5	100	9.056 199
47	100	9.048 945
55	100	9.056 200
70	100	9.056 201
85	100	9.048 946
90	100	9.056 202
110	100	9.056 203
125	100	9.056 204
150	100	9.056 205
185	100	9.056 206
240	100	9.056 207
270	100	9.056 208
320	100	9.056 209
400	100	9.056 278
500	100	9.056 279
26 x 31	1000	9.056 337
460 x 570	100	9.056 331
460 x 570	500	9.056 340
580 x 680	100	9.056 341
75 x 100	500	9.056 338

## 6. Distillation, Separation, Filtration Filtration/Filter paper, qualitative

### 1 Filter paper, Grade number 2

Circles and sheets. Qualitative. Slightly thicker and more retentive than number 1.

GE Healthcare

Flowrate:	Medium/Fast
Retention:	Medium
Wet strength:	Low
Thickness:	0.19mm
Ash:	0.06%

Dia. mm	PK	Cat. No.
42.5	100	9.056 198
55	100	9.056 210
70	100	9.056 211
90	100	9.056 212
110	100	9.056 213
125	100	9.056 214
150	100	9.056 215
185	100	9.056 216
240	100	9.056 217
320	100	9.056 219
460 x 570	100	9.056 332



### 2 Filter paper, Grade number 2 V

Qualitative. Folded (pre-pleated) version of Number 2.

GE Healthcare

Flowrate:	Medium/Fast
Retention:	Medium
Wet strength:	Low
Thickness:	0.19mm
Ash:	0.06%

Dia. mm	PK	Cat. No.
125	100	9.056 304
150	100	9.056 305
185	100	9.056 306
240	100	9.056 307
270	100	9.056 308
320	100	9.056 309



### 3 Filter paper, Grade number 3

Circles and sheets. Qualitative. Very thick. Double the thickness of number 1.

GE Healthcare

Flowrate:	Medium
Retention:	High
Wet strength:	Medium
Thickness:	0.39mm
Ash:	0.06%

Dia. mm	PK	Cat. No.
55	100	9.056 220
70	100	9.056 221
90	100	9.056 222
110	100	9.056 223
125	100	9.056 224
150	100	9.056 225
185	100	9.056 226
240	100	9.056 227
460 x 570	100	9.056 333



### 4 Filter paper, Grade number 4

Circles. Qualitative. Fast flowrate. Excellent retention of coarse and gelatinous precipitants. Creped. Supplied in packs of circles as outlined below.

GE Healthcare

Flowrate:	Fast
Retention:	Medium
Wet strength:	Low
Thickness:	0.21mm
Ash:	0.06%

Dia. mm	PK	Cat. No.
42	100	9.056 231
55	100	9.056 233
70	100	9.056 235
90	100	9.056 196
110	100	9.056 230
125	100	9.056 232
150	100	9.056 234
185	100	9.056 236
240	100	9.056 237
320	100	9.056 239
460	100	9.056 334



## Filtration/Filter paper, qualitative



### 1 Filter paper, Grade number 5

Circles. Qualitative. Slow flowrate. Retains fine precipitates, grained surface. Supplied in

GE Healthcare

Flowrate: Slow  
 Retention: High  
 Wet strength: Low  
 Thickness: 0.20mm  
 Ash: 0.06%

Dia. mm	PK	Cat. No.
55	100	9.056 240
70	100	9.056 241
90	100	9.056 242
110	100	9.056 243
125	100	9.056 244
150	100	9.056 245
185	100	9.056 246
240	100	9.056 247



### 2 Filter paper, Grade number 6

Circles. Qualitative. Slow. Supplied in packs of circles as outlined below.

GE Healthcare

Flowrate: Slow  
 Retention: High  
 Wet strength: Low  
 Thickness: 0.18mm  
 Ash: 0.20%

Dia. mm	PK	Cat. No.
70	100	9.056 251
90	100	9.056 252
110	100	9.056 253
125	100	9.056 254
150	100	9.056 255
185	100	9.056 256
240	100	9.056 257



### 3 Filter paper, Grade 91

Circles and sheets. Qualitative. General purpose schools grade, creped.

GE Healthcare

Flowrate: Medium/Fast  
 Retention: Medium  
 Wet strength: High  
 Thickness: 0.23mm

Dia. mm	PK	Cat. No.
110	100	9.048 938
125	100	9.048 933
150	100	9.048 939
185	100	9.048 934
240	100	9.048 940
480 x 480	500	9.048 941



### 4 Filter paper, grade 113

Circles. Qualitative. Fast flow. Excellent retention of coarse and gelatinous precipitates, creped.

GE Healthcare

Flow rate: Fast  
 Retention: Medium  
 Wet strength: High  
 Thickness: 0.42mm  
 Ash: 0.06%

Dia. mm	PK	Cat. No.
90	100	9.049 015
125	100	9.049 016
150	100	9.049 017
185	100	9.049 018
240	100	9.049 019

## 6. Distillation, Separation, Filtration Filtration/Filter paper, qualitative

### 1 Filter paper, grade 113 V

Circles. Prepleated. Qualitative. Excellent retention of coarse and gelatinous precipitates, creped.

GE Healthcare

Dia. mm	PK	Cat. No.
125	100	9.056 294
150	100	9.056 295
185	100	9.056 296
240	100	9.056 297
270	100	9.056 298
320	100	9.056 299
500	100	9.056 301



### 2 Filter paper, grade 114

Circles. Qualitative. Thin and very strong. Smooth surface.

GE Healthcare

Flow rate: Fast  
Retention: Medium  
Wet strength: High  
Thickness: 0.19mm  
Ash: 0.06%

Dia. mm	PK	Cat. No.
150	100	9.049 027
270	100	9.049 028



### 3 Filter paper, grade 114 V

Circles. Prepleated. Qualitative. Thin and very strong. Smooth surface.

GE Healthcare

Dia. mm	PK	Cat. No.
125	100	9.056 324
150	100	9.056 325
185	100	9.056 326
240	100	9.056 327



### 4 Filter paper, Grade 542

Circles. Qualitative. Hardened. Ashless. Highly retentive for fine precipitates.

GE Healthcare

Flow rate: Fast  
Retention: Medium  
Wet strength: High  
Thickness: 0.16mm  
Ash: 0.08%

Dia. mm	PK	Cat. No.
55	100	9.056 500
70	100	9.056 461
90	100	9.056 502
110	100	9.056 503
125	100	9.056 504
150	100	9.056 505
185	100	9.056 506
240	100	9.056 507



We can supply this  
manufacturer's  
whole  
product range !



## Filtration/Filter paper, qualitative


**1**

### 1 Qualitative filter paper, Grade 593 1/2, folded filters

**Medium to slow 2 to 5µm**
*GE Healthcare*

- time saving, because folded filters have a larger surface area than comparable circular filters
- for medium to fine precipitates and general laboratory work
- Weight: 85g/m<sup>2</sup>
- Thickness: 0.17mm

Dia. mm	PK	Cat. No.
125	100	<b>9.063 104</b>
150	100	<b>9.063 105</b>
185	100	<b>9.063 106</b>
240	100	<b>9.063 107</b>


**2**

### 2 Qualitative filter paper, Grade 595, circles and sheets

**Medium fast 4 to 7µm**
*GE Healthcare*

- thin filter paper
- for medium to fine precipitates and general laboratory work
- Weight: 68g/m<sup>2</sup>
- Thickness: 0.16mm

Dia. mm	PK	Cat. No.
110	100	<b>9.062 303</b>
125	100	<b>9.062 304</b>
150	100	<b>9.062 305</b>

### Qualitative filter paper, Grade 594 1/2, folded filters

**Slow 2 to 4µm**
*GE Healthcare*

- for fine precipitates
- Weight: 85g/m<sup>2</sup>
- Thickness: 0.17mm

Dia. mm	PK	Cat. No.
185	100	<b>9.063 206</b>


**3**

### 3 Qualitative filter paper, Grade 595 1/2, folded filters

**Medium fast, 4 to 7µm**
*GE Healthcare*

- time saving, because folded filters have a larger surface area
- filter faster than comparable circular filters
- for medium to fine precipitates and general laboratory work
- Weight: 68g/m<sup>2</sup>
- Thickness: 0.16mm

Dia. mm	PK	Cat. No.
70	100	<b>9.063 301</b>
110	100	<b>9.063 303</b>
125	100	<b>9.063 304</b>
150	100	<b>9.063 305</b>
185	100	<b>9.063 306</b>
240	100	<b>9.063 307</b>
270	100	<b>9.063 308</b>
320	100	<b>9.063 309</b>
385	100	<b>9.063 310</b>





#### 1 Qualitative filter paper, Grade 597, circles and sheets

##### Medium fast, 4 to 7µm

- thicker and faster than 595
- for medium to fine precipitates
- Weight: 82g/m<sup>2</sup>
- Thickness: 0.19mm

GE Healthcare

Dia. mm	PK	Cat. No.
55	100	9.062 400
90	100	9.062 402
110	100	9.062 403
150	100	9.062 405
185	100	9.062 406
240	100	9.062 407
580 x 580	100	9.066 597

1



#### 2 Qualitative filter paper, Grade 597½, folded filters

##### Medium fast, 4 to 7µm

- time saving, because folded filters have a larger surface area
- for medium to fine precipitates
- Weight: 82g/m<sup>2</sup>
- Thickness: 0.19mm

GE Healthcare

Dia. mm	PK	Cat. No.
90	100	9.063 402
110	100	9.063 403
125	100	9.063 404
150	100	9.063 405
185	100	9.063 406
240	100	9.063 407
270	100	9.063 408
320	100	9.063 409
385	100	9.063 410
500	100	9.063 411

2



#### Qualitative filter paper, Grade 598½, folded filters

##### Medium to fast, 7 to 12µm

- thick filter paper
- for fast filtration of coarse precipitates
- Weight: 80g/m<sup>2</sup>
- Thickness: 0.32mm

GE Healthcare

Dia. mm	PK	Cat. No.
125	50	9.063 604
185	50	9.063 606
240	50	9.063 607
500	50	9.063 611
580 x 580	250	9.066 598

#### Qualitative filter paper, Grade 602 h, circles and sheets

##### Slow < 2µm

- thick filter paper
- for fine precipitates
- Weight: 85g/m<sup>2</sup>
- Thickness: 0.15mm

GE Healthcare

Dia. mm	PK	Cat. No.
90	100	9.062 702
125	100	9.062 704
185	100	9.062 706

#### Qualitative filter paper, thick, Grade 602eh½, folded filters

##### Very slow, <2 µm

- thick filter paper
- for fine precipitates
- Weight: 85g/m<sup>2</sup>
- Thickness: 0.15mm

GE Healthcare

Dia. mm	PK	Cat. No.
125	100	9.063 804
150	100	9.063 805
185	100	9.063 806

**1**

**1 Qualitative filter paper, Grade 1573½, folded filters**
**Fast, 12 to 25µm**

GE Healthcare

- wet-strength
- time saving, because folded filters have a larger surface area than circular filters of the same diameter
- Weight: 90g/m<sup>2</sup>
- Thickness: 0.18mm

Dia. mm	PK	Cat. No.
125	100	<b>9.065 104</b>
150	100	<b>9.065 105</b>
185	100	<b>9.065 106</b>
240	100	<b>9.065 107</b>
270	100	<b>9.065 108</b>
320	100	<b>9.065 109</b>
500	100	<b>9.065 111</b>

**Qualitative filter paper, Grade 604½, folded filters**
**Fast, 12 to 25µm**

GE Healthcare

- time saving, because folded filters have a larger surface area
- filter faster than comparable circular filters
- for coarse precipitates (e.g. hydroxide and sulphide)
- Weight: 80g/m<sup>2</sup>
- Thickness: 0.19mm

Dia. mm	PK	Cat. No.
150	100	<b>9.063 905</b>
185	100	<b>9.063 906</b>
240	100	<b>9.063 907</b>
320	100	<b>9.063 909</b>
500	100	<b>9.063 911</b>

**LLG-Filter papers for quantitative analysis**

Made from 100 % cellulose.  
 Ash content 0,007 %.  
 Filtration speed according to DIN 53137.  
 Capacity of separation according to DIN 53135.

**2**

**2 LLG-Quantitative filter paper, circles**
**NEW!**

Fast, ashless

Dia. mm	Filtration time secs.	PK	Cat. No.
70	10	100	<b>9.045 840</b>
90	10	100	<b>9.045 841</b>
110	10	100	<b>9.045 842</b>
125	10	100	<b>9.045 843</b>
150	10	100	<b>9.045 844</b>
185	10	100	<b>9.045 845</b>

**3**

**3 LLG-Quantitative filter paper, circles**
**NEW!**

Slow, ashless

Dia. mm	Filtration time secs.	PK	Cat. No.
90	180	100	<b>9.045 850</b>
125	180	100	<b>9.045 851</b>
150	180	100	<b>9.045 852</b>

### 1 Filter paper, quantitative, coloured, round filters

Hahnemühle

Type	Colour	Weight g / m <sup>2</sup>	Dia. mm	PK	Cat. No.
FP 589/1	black	79	47.0	100	4.006 441
FP 589/1	black	79	55.0	100	4.006 442
FP 589/1	black	79	70.0	100	4.006 443
FP 589/1	black	79	90.0	100	4.006 444
FP 589/1	black	79	110.0	100	4.006 445
FP 589/1	black	79	125.0	100	4.006 446
FP 589/1	black	79	150.0	100	4.006 447
FP 589/1	black	79	185.0	100	4.006 448
FP 589/1	black	79	240.0	100	4.006 449
FP 589/2	white	85	12.5	1000	4.006 450
FP 589/2	white	85	40.5	100	4.006 451
FP 589/2	white	85	47.0	100	4.006 452
FP 589/2	white	85	55.0	100	4.006 453
FP 589/2	white	85	70.0	100	4.006 454
FP 589/2	white	85	90.0	100	4.006 455
FP 589/2	white	85	110.0	100	4.006 456
FP 589/2	white	85	125.0	100	4.006 457
FP 589/2	white	85	150.0	100	4.006 458
FP 589/2	white	85	185.0	100	4.006 459
FP 589/2	white	85	240.0	100	4.006 460
FP 589/3	blue	84	47.0	100	4.006 461
FP 589/3	blue	84	55.0	100	4.006 462
FP 589/3	blue	84	70.0	100	4.006 463
FP 589/3	blue	84	90.0	100	4.006 464
FP 589/3	blue	84	110.0	100	4.006 465
FP 589/3	blue	84	125.0	100	4.006 466
FP 589/3	blue	84	150.0	100	4.006 467
FP 589/3	blue	84	185.0	100	4.006 468
FP 589/3	blue	84	240.0	100	4.006 469
FP 589/4	yellow	81	47.0	100	4.006 470
FP 589/4	yellow	81	55.0	100	4.006 471
FP 589/4	yellow	81	70.0	100	4.006 472
FP 589/4	yellow	81	90.0	100	4.006 473
FP 589/4	yellow	81	110.0	100	4.006 474
FP 589/4	yellow	81	125.0	100	4.006 475
FP 589/4	yellow	81	150.0	100	4.006 476
FP 589/4	yellow	81	185.0	100	4.006 477
FP 589/4	yellow	81	240.0	100	4.006 478
FP 589/5	red	84	47.0	100	4.006 479
FP 589/5	red	84	55.0	100	4.006 480
FP 589/5	red	84	70.0	100	4.006 481
FP 589/5	red	84	90.0	100	4.006 482
FP 589/5	red	84	110.0	100	4.006 483
FP 589/5	red	84	125.0	100	4.006 484
FP 589/5	red	84	150.0	100	4.006 485
FP 589/5	red	84	185.0	100	4.006 486
FP 589/5	red	84	240.0	100	4.006 487
FP 589/6	green	74	47.0	100	4.006 488
FP 589/6	green	74	50.0	100	4.006 489
FP 589/6	green	74	55.0	100	4.006 490
FP 589/6	green	74	70.0	100	4.006 491
FP 589/6	green	74	90.0	100	4.006 492
FP 589/6	green	74	110.0	100	4.006 493
FP 589/6	green	74	125.0	100	4.006 494
FP 589/6	green	74	150.0	100	4.006 495
FP 589/6	green	74	185.0	100	4.006 496
FP 589/6	green	74	240.0	100	4.006 497



### 2 Filter paper, quantitative, Grade 388 - black spot, circles and sheets

Sartorius Stedim

Properties: Rapid filtration, coarse porosity  
 Filtration time: 6 to 14secs.  
 Surface weight: 84g/m<sup>2</sup>

Dia. mm	PK	Cat. No.
55	100	9.049 500
70	100	9.049 501
90	100	9.049 502
110	100	9.049 503
125	100	9.049 504
150	100	9.049 505
185	100	9.049 571
240	100	9.049 572

Other formats and diameters are available on request.



## Filtration/Filter paper, quantitative



### 1 Quantitative filter paper, Grade 389 - white spot, circles and sheets

Sartorius Stedim

Properties: medium speed filtration  
 Filtration time: 16 to 28 secs.  
 Surface weight: 84g/m<sup>2</sup>

Dia. mm	PK	Cat. No.
55	100	9.049 510
70	100	9.049 511
90	100	9.049 512
110	100	9.049 513
125	100	9.049 514
150	100	9.049 515

Other formats and diameters are available on request.



### 2 Quantitative filter paper, Grade 391 - blue spot, circles and sheets

Sartorius Stedim

Properties: very slow filtration  
 Filtration time: 150 to 250 secs.  
 Surface weight: 84g/m<sup>2</sup>

Dia. mm	PK	Cat. No.
55	100	9.049 520
70	100	9.049 585
90	100	9.049 586
110	100	9.049 587
125	100	9.049 524
150	100	9.049 588
185	100	9.049 589
240	100	9.049 590
580 x 580	100	9.049 591

Other formats and diameters are available on request.



### 3 Filter paper, quantitative, Grade 392 - red spot, circles and sheets

Sartorius Stedim

Properties: medium fast filtration  
 Filtration time: 35 to 70secs.  
 Surface weight: 84g/m<sup>2</sup>

Dia. mm	PK	Cat. No.
55	100	9.049 577
70	100	9.049 578
90	100	9.049 579
110	100	9.049 580
125	100	9.049 581
150	100	9.049 582
185	100	9.049 536
240	100	9.049 583
580 x 580	100	9.049 584

Other formats and diameters are available on request.



### 4 Quantitative filter paper, type MN 640 w, circles

MACHERY-NAGEL

Fast, medium smooth, ash-free.

Dia. mm	Filtration time secs.	PK	Cat. No.
55	7 to 9	100	9.046 200
70	7 to 9	100	9.046 201
90	7 to 9	100	9.046 202
110	7 to 9	100	9.046 203
125	7 to 9	100	9.046 204
150	7 to 9	100	9.046 205

Grey pack, equivalent grade to black band.

## 6. Distillation, Separation, Filtration Filtration/Filter paper, quantitative

### 1 Quantitative filter paper, type MN 640 m, circles

Medium-fast, medium smooth, ash-free.

MACHERY-NAGEL

Dia. mm	Filtration time secs.	PK	Cat. No.
55	25 to 30	100	9.046 300
70	25 to 30	100	9.046 301
90	25 to 30	100	9.046 302
110	25 to 30	100	9.046 303
125	25 to 30	100	9.046 304
150	25 to 30	100	9.046 305

White pack, equivalent grade to white band.



### 2 Quantitative filter paper, Grade 589/1, circles

**Fast 12 to 25µm**

**Black ribbon**

GE Healthcare

- for coarse, high volume precipitates
- for determinations according to the German Standard Methods for the examination of water, waste water and sludge.
- most frequently used quantitative filter
- Weight: 80g/m<sup>2</sup>
- Thickness: 0.19mm

Dia. mm	PK	Cat. No.
90	100	9.060 102
110	100	9.060 103
125	100	9.060 104
150	100	9.060 105
185	100	9.060 106



### 3 Quantitative filter paper, Grade 589/2

**Medium fast, 4 to 12µm. White ribbon.**

GE Healthcare

- for the analysis of foodstuffs
- for carbonates of alkaline earth metals, (NH<sub>4</sub>)<sub>2</sub>[P(Mo<sub>3</sub>O<sub>10</sub>)<sub>4</sub>] x aq., Mg(NH<sub>4</sub>)PO<sub>4</sub>, CaC<sub>2</sub>O<sub>4</sub> (hot precipitates)
- Weight: 85g/m<sup>2</sup>
- Thickness: 0.18mm

Dia. mm	PK	Cat. No.
55	100	9.060 200
70	100	9.060 201
90	100	9.060 202
110	100	9.060 203
125	100	9.060 204
150	100	9.060 205
185	100	9.060 206
240	100	9.060 207



### 4 Quantitative filter paper, Grade 589/3, circles

**Slow < 2µm. Blue ribbon.**

GE Healthcare

- for very fine precipitates and small particles
- for soil analysis
- for BaSO<sub>4</sub> (hot precipitate), PbSO<sub>4</sub>, Cu<sub>2</sub>O, ZnS, NiS
- Weight: 84g/m<sup>2</sup>
- Thickness: 0.16mm

Dia. mm	PK	Cat. No.
110	100	9.060 303
125	100	9.060 304
150	100	9.060 305
185	100	9.060 306



## Filtration/Filter paper, quantitative



1

### 1 Quantitative filter paper, grade 40

Circles. Quantitative. Ashless.

GE Healthcare

Flow rate: Medium  
 Retention: Medium  
 Wet strength: Low  
 Thickness: 0.21mm  
 Ash: 0.007%

Dia. mm	PK	Cat. No.
32.0	100	9.049 035
24.5	100	9.056 399
55.0	100	9.056 400
70.0	100	9.056 401
90.0	100	9.056 402
110.0	100	9.056 403
125.0	100	9.056 404
150.0	100	9.056 405
185.0	100	9.056 406
240.0	100	9.056 407



2

### 2 Quantitative filter paper, grade 41

Circles. Quantitative. Ashless. For filtration of coarse and gelatinous precipitates. Supplied in box of 100.

GE Healthcare

Flow rate: Fast  
 Retention: Medium  
 Wet strength: Low  
 Thickness: 0.22mm  
 Ash: 0.007%

Dia. mm	PK	Cat. No.
55	100	9.056 410
60	100	9.049 045
70	100	9.056 411
90	100	9.056 412
110	100	9.056 413
125	100	9.056 414
150	100	9.056 415
185	100	9.056 416
240	100	9.056 417



3

### 3 Filter paper, grade 42

Circles. Quantitative. Ashless. For filtration of fine precipitates.

GE Healthcare

Flow rate: Slow  
 Retention: Medium  
 Wet strength: Low  
 Thickness: 0.20mm  
 Ash: 0.007%

Dia. mm	PK	Cat. No.
42.5	100	9.056 419
55.0	100	9.056 420
70.0	100	9.056 421
90.0	100	9.056 422
110.0	100	9.056 423
125.0	100	9.056 424
150.0	100	9.056 425
185.0	100	9.056 426
240.0	100	9.056 427



### 1 Phase separators, 1PS

A silicone impregnated, water repellent paper which can be used to separate aqueous solutions from immiscible solvents. The aqueous phase is retained and the organic phase passes through. Will retain solid particles. Can be used either flat under suction not exceeding 70mm Hg or quadrant folded in a conical glass funnel. Supplied in box of 100 circles.  
 Note: This paper contains a small quantity of tin complex catalyst. It is therefore not recommended for use when this complex may cause interference, e.g. with the use of dithizone (diphenylthiocarbazone) reagent.

*GE Healthcare*



Flow rate: Fast  
 Retention: Medium  
 Wet strength: High  
 Thickness: 0.16mm  
 Ash: 0.008%

Dia. mm	PK	Cat. No.
70	100	9.056 891
90	100	9.056 892
110	100	9.056 893
125	100	9.056 894
150	100	9.056 895
185	100	9.056 896

### Glass microfibre filters

Glass microfibre filters have a fast filtration and a high loading capacity and particle retention rate. Manufactured without chemical binder from high grade borosilicate glass. (Exception: GF6, GF9). They are suitable for gravity or low suction filtration. Filtration speeds generally very much higher than conventional cellulose papers. Efficient retention of micron size particles. Must be used flat. Ideal for use in flat perforated plate Buchner type funnels (not sintered glass models). Can be used up to 550°C

Wide range of applications including:

- retention of fine analytical precipitates
- retention of biochemical gelatinous precipitates
- water/air pollution analyses
- as prefilters for membranes
- scintillation counting
- radioimmunoassay.

### 2 LLG-Glass microfibre filters, filter circles

NEW!

Dia. mm	Filtration time secs.	PK	Cat. No.
25	60	100	9.045 860
47	60	100	9.045 861
150	60	100	9.045 862
25	100	100	9.045 865
70	100	100	9.045 866
90	100	100	9.045 867
110	100	100	9.045 868



### 3 Pre-filters, glass microfibre

Type 13400. The standard glass fibre pre-filter, placed directly on top of the membrane filter. With acrylic latex binder (4% to 6%, determined by ashing).

*Sartorius Stedim*

Dia. mm	PK	Cat. No.
100	50	9.053 714
130	50	9.053 717

Other formats are available on request.



## Filtration/Glass-fibre filters

1



### 1 Glass microfibre filters, grade GF 6, circles

Glass fibre filters are made of 100% borosilicate glass fibres with an inorganic binder. They are mechanically stable, this makes them easy to use. Temperature resistant up to 500°C.

GE Healthcare

Glass fibre filters are chemically resistant except against hydrofluoric acids and highly concentrated alkalis. They are known for their fast filtration times (compared to other medias) with excellent retention rates, even of very fine particles from aqueous solutions and gases.

**Application:**

Gas-/air-monitoring  
Water and waste water determination

Retention rate:	99.97%
Filtration time according to Herzberg:	200s
Filtration time according to Gurley:	40s
Weight:	80g/m <sup>2</sup>
Thickness:	350µm

Dia. mm	PK	Cat. No.
55	100	9.068 500
70	100	9.068 501
90	100	9.068 502
110	100	9.068 503
125	100	9.068 504
150	100	9.068 505
185	100	9.068 506
240	100	9.068 507

### Glass microfibre filters, grade GF 9, circles

With inorganic binder.

GE Healthcare

dRetention rate:	99.97%
Filtration time according to Herzberg:	120s
Filtration time according to Gurley:	20s
Weight:	70g/m <sup>2</sup>
Thickness:	350µm

Dia. mm	PK	Cat. No.
50	200	9.068 699
90	100	9.068 702
110	100	9.068 703
150	100	9.068 705

2



### 2 Glass microfibre filters, grade GF/A

The general purpose high efficiency glass microfibre filter. Particle retention to 1.6µm. Supplied in pack quantities as indicated.

GE Healthcare

Dia. mm	PK	Cat. No.
21	100	9.056 641
24	100	9.056 661
25	100	9.056 671
37	100	9.056 691
42.5	100	9.056 711
47	100	9.056 721
50	100	9.056 725
55	100	9.056 740
60	100	9.056 739
70	100	9.056 741
90	100	9.056 742
110	100	9.056 743
125	100	9.056 744
150	100	9.056 745
254 x 203	100	9.056 811
570 x 460	25	9.056 801



## 6. Distillation, Separation, Filtration Filtration/Glass-fibre filters

### 1 Glass microfibre filters, grade GF/B

Three times thicker and with greater wet strength than GF/A. Particle retention to 1µm. Supplied in pack quantities as outlined below.

GE Healthcare

Dia. mm	PK	Cat. No.
24	100	9.056 662
25	100	9.056 672
37	100	9.056 692
42.5	100	9.056 712
47	100	9.056 722
55	100	9.056 750
70	100	9.056 751
90	25	9.056 752
110	25	9.056 753
125	25	9.056 754
150	25	9.056 755
185	25	9.056 756
570 x 460	25	9.056 802



### 2 Glass microfibre filters, grade GF/C

Extremely efficient filter made to retain fine particles and micro organisms. Particle retention to 1.2µm.

GE Healthcare

Dia. mm	PK	Cat. No.
21	100	9.056 643
24	100	9.056 663
25	100	9.056 673
42.5	100	9.056 713
47	100	9.056 723
50	100	9.056 759
55	100	9.056 760
70	100	9.056 761
90	100	9.056 762
110	100	9.056 763
125	100	9.056 764
150	100	9.056 765
254 x 102	50	9.056 816
570 x 460	25	9.056 803



### 3 Glass microfibre filters, grade GF/D

Thick filter made from less fibres and retaining around 3µm particles with a very high loading capacity. Extremely high speed. Particle retention to 2.7µm.

GE Healthcare

Dia. mm	PK	Cat. No.
25	100	9.056 674
47	100	9.056 724
70	100	9.056 771
90	25	9.056 772
110	25	9.056 773
125	25	9.056 774
150	25	9.056 775
257	25	9.056 777



### 4 Glass microfibre filters, grade GF/F

This ultra-fine filter has a 98% retention efficiency for particles as small as 0.7µm in liquids. Particle retention to 0.7µm.

GE Healthcare

Dia. mm	PK	Cat. No.
24	100	9.056 666
25	100	9.056 676
42.5	100	9.056 716
47	100	9.056 726
55	100	9.056 780
70	100	9.056 781
90	25	9.056 782
110	25	9.056 783
125	25	9.056 784
150	25	9.056 785
257	25	9.056 787
570 x 460	25	9.056 805



## Filtration/Glass-fibre filters-Membrane filters



### 1 Glass microfibre filters, grade 934-AH

Circles. High retention at high flow rates. Widely used in water pollution monitoring techniques for suspended solids, and is specified in US Method 934-AH. Particle retention to 1.5µm.

GE Healthcare

Dia. mm	PK	Cat. No.
24	100	9.056 667
47	100	9.056 727
55	100	9.056 730
70	100	9.056 731
90	100	9.056 732
110	100	9.056 733
125	100	9.056 734

### Glass microfibre filters, grade EPM 2000

For use in high volume air sampling apparatus. Particle retention to 2µm.

GE Healthcare

Dia. mm	PK	Cat. No.
203 x 254	100	9.049 672



### 2 Quartz microfibre filters, grade QM-A

Manufactured from quartz microfibre to withstand high temperatures. Can be used up to 500°C.

GE Healthcare

Flow rate:	Fast
Retention:	Medium
Wet strength:	High
Thickness:	0.16mm
Ash:	0.008%

Dia. mm	PK	Cat. No.
25	100	9.056 679
37	100	9.056 699
47	100	9.056 729
203 x 254	25	9.056 814



### 3 Membrane filters, cellulose acetate

Type 111. Resistant to steam sterilisation up to 134°C, or in dry heat up to 180°C. Very low adsorption (important when filtering proteinaceous solutions). Suitable for particle removal and ultracleaning of aqueous solutions, methanol, ethanol, high-grade alcohols and residue analysis of fuels and oils. The extractable content of these filters make up <1% of their weight. Other pore sizes and formats available on request.

Sartorius Stedim

Type	Pore size µm	Dia. mm	PK	Cat. No.
11106	0.45	25	100	9.053 044
11106	0.45	47	100	9.053 048
11106	0.45	50	100	9.053 049
11106	0.45	142	25	9.053 055
11107	0.20	25	100	9.053 064
11107	0.20	47	100	9.053 068
11107	0.20	50	100	9.053 069
11107	0.20	142	25	9.053 075

Other patterns are available on request.

## 1 Membrane filters, cellulose nitrate

Type 113. White. Very low content of extractable materials. Weight constant after 60 minutes of drying at 105°C. Suitable for residue analysis, microscopic viewing in incident or transmitted light, chemotaxis, x-ray fluorescence, spectrometry and gravimetric analysis. Autoclavable at 121°C. Other pore sizes and formats are available on request. *Sartorius Stedim*



Type	Pore size µm	Dia. mm	PK	Cat. No.
11301	8.00	25	100	9.053 304
11301	8.00	47	100	9.053 308
11301	8.00	50	100	9.053 309
11302	3.00	50	100	9.053 349
11303	1.20	25	100	9.053 364
11303	1.20	47	100	9.053 368
11303	1.20	50	100	9.053 369
11304	0.80	25	100	9.053 384
11304	0.80	47	100	9.053 388
11304	0.80	50	100	9.053 389
11306	0.45	25	100	9.053 424
11306	0.45	47	100	9.053 428
11306	0.45	50	100	9.053 429
11306	0.45	142	25	9.053 432

Other patterns are available on request.

## 2 Membrane filters, Polyamide

Type 250. Polyamide, white. For filtration of alkaline solutions and organic solvents. *Sartorius Stedim*



Type	Pore size µm	Dia. mm	PK	Cat. No.
2506	0.45	25	100	9.053 227
2506	0.45	47	100	9.053 242
2506	0.45	50	100	9.053 243
2507	0.20	25	100	9.053 222
2507	0.20	47	100	9.053 223
2507	0.20	50	100	9.053 224

Other patterns are available on request.

## 3 Membrane filters, blotting, Polycarbonate

Type 230. Polycarbonate (PC), white, non-sterile. Ultrapure, polycarbonate membrane with especially smooth surface and fine pore distribution. Applications include COD/TOC testing, particle analysis or epifluorescence microscopy. *Sartorius Stedim*



Type	Pore size µm	Dia. mm	PK	Cat. No.
23006	0.40	25	100	9.049 182
23006	0.40	47	100	9.049 183
23007	0.20	25	100	9.049 180
23007	0.20	47	100	9.049 181

Other patterns are available on request.

## Membrane filters, Grade AE, made from pure cellulose nitrate

**Applications:** For prefiltration and dust measurement, clarification and sterile filtration. *GE Healthcare*

- Properties:**
- Very easily wetted
  - For aqueous solutions
  - Hydrophilic
  - Can be used up to 125°C
  - Autoclavable up to 121°C

Type	Pore size µm	Dia. mm	PK	Cat. No.
AE 98	5.00	47	100	9.057 041
AE 98	5.00	50	100	9.057 042
AE 99	8.00	25	100	9.057 005
AE 99	8.00	47	100	9.057 011
AE 99	8.00	50	100	9.057 012
AE 99	8.00	150	25	9.057 019
AE 100	12.00	47	100	9.057 191
AE 100	12.00	50	100	9.057 193

**1**

**1** Membrane filters, Grade ME, made from mixed cellulose esters

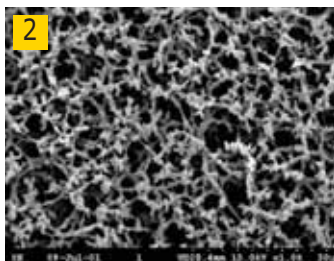
*GE Healthcare*
**Applications:**

- Excellent for gravimetric analysis
- Especially for aqueous solutions
- Ideally suitable for contamination test

**Properties:**

- Economical
- Constant weight
- Hydrophilic
- Not sterile
- Can be used up to 125°C
- Autoclavable up to 121°C

Type	Pore size µm	Dia. mm	PK	Cat. No.
ME24	0.20	25	100	9.058 965
ME24	0.20	47	100	9.058 969
ME24	0.20	50	100	9.058 987
ME24	0.20	142	25	9.058 981
ME25	0.45	25	100	9.058 935
ME25	0.45	47	100	9.058 939
ME25	0.45	50	100	9.058 942
ME25	0.45	100	50	9.058 946
ME25	0.45	110	50	9.057 812
ME25	0.45	142	25	9.058 951
ME27	0.80	25	100	9.058 865
ME27	0.80	47	100	9.058 869
ME27	0.80	50	100	9.058 872
ME28	1.20	47	100	9.058 839
ME28	1.20	50	100	9.058 842
ME29	3.00	25	100	9.057 800
ME29	3.00	47	100	9.058 809
ME29	3.00	50	100	9.058 812

**2**

**2** Membrane filters, Grade NC, made from cellulose nitrate

*GE Healthcare*

Grade NC

**Applications:**

- For prefiltration and dust measurement, clarification and sterile filtration
- For aqueous solutions

**Properties:**

- Very easily wetted
- Hydrophilic
- Can be used up to 125°C
- Autoclavable up to 121°C

Type	Pore size µm	Dia. mm	PK	Cat. No.
NC 10	0.10	47	100	9.057 341
NC 10	0.10	50	100	9.057 342
NC 20	0.20	25	100	9.058 326
NC 20	0.20	47	100	9.058 327
NC 20	0.20	50	100	9.058 328
NC 45	0.45	25	100	9.057 219
NC 45	0.45	47	100	9.057 220
NC 45	0.45	50	100	9.057 222
NC 45	0.45	100	50	9.057 225
NC 45	0.45	110	50	9.057 226
NC 45	0.45	142	25	9.057 228



## 1 Membrane filters, Grade NL, made from pure polyamide

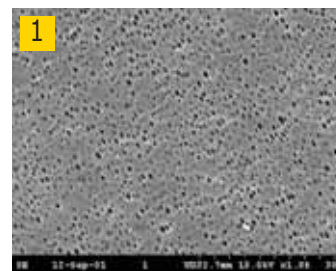
**Application:**

- Universal filter, especially in the pharmaceutical section

**Properties:**

- Mechanically very strong
- For aqueous and organic solutions
- Hydrophilic
- Can be used up to 135°C
- Autoclavable up to 134°C

GE Healthcare



Type	Pore size µm	Dia. mm	PK	Cat. No.
NL 16	0.20	47	100	9.057 433
NL 17	0.45	25	100	9.057 452
NL 17	0.45	47	100	9.057 453
NL 17	0.45	50	100	9.057 454
NL 17	0.45	142	25	9.057 457

## 2 Membrane filters, Grade OE, made from cellulose acetate

Very high wet strength and very low ability for protein binding. For filtration of aqueous, alcohol and oil-based solutions at temperatures up to 180°C.

GE Healthcare



Description	Pore size µm	Dia. mm	PK	Cat. No.
OE 67	0.45	25	100	9.057 565
OE 67	0.45	47	100	9.057 571
OE 67	0.45	50	100	9.057 572
OE 67	0.45	100	50	9.057 575
OE 67	0.45	142	25	9.057 578
OE 66	0.20	25	100	9.057 605
OE 66	0.20	47	100	9.057 611
OE 66	0.20	50	100	9.057 612
OE 66	0.20	142	25	9.057 618

## 3 Membrane Filters, Grade RC, Regenerated cellulose

**Application:**

For the sterilisation and particle filtration of aqueous and organic solutions

**Properties**

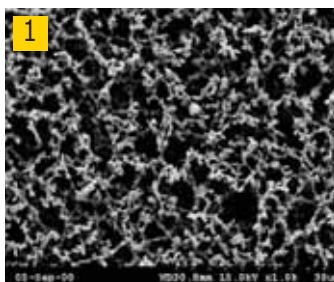
- spontaneously wetted, very good wet-strength
- high chemical resistance, useful for aqueous and organic media
- hydrophilic
- can be used up to 180°C
- sterilisable by all methods
- suitable for use as sterile filter to ASTM-D 3862-80

GE Healthcare



Type	Pore size µm	Dia. mm	PK	Cat. No.
RC 58	0.20	47	100	9.057 771
RC 55	0.45	47	100	9.057 791
RC 55	0.45	50	100	9.057 792
RC 55	0.45	100	25	9.057 795
RC 55	0.45	142	25	9.057 798
RC 60	1.00	50	100	9.057 712

## Filtration/Membrane filters



### 1 Membrane filters, Grade ST, made from pure cellulose acetate

**Applications:**

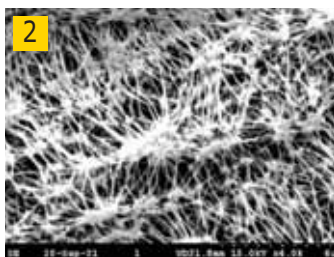
- ideal for biological and clinical analyses, sterility tests, scintillation measurements

GE Healthcare

**Properties:**

- very low protein binding capacity
- suitable for aqueous and alcohol-based media
- hydrophilic
- can be used up to 180°C, suitable for hot gases
- sterilisable by all methods

Type	Pore size µm	Dia. mm	PK	Cat. No.
ST 68	0.80	50	100	9.057 542
ST 69	1.20	50	100	9.057 512



### 2 Membrane filters, Grade TE, PTFE with support

**Applications:**

- Ideal venting filter for all applications
- For aggressive media and cryogenic liquids
- Separation of free water from organic solutions
- Outstanding as gas/liquid barrier
- Filtration of air and (hot) gases

GE Healthcare

**Properties:**

- Chemically inert to aqueous and organic solutions as well as concentrated acids and bases
- Hydrophobic - for aqueous filtration the pressure must be higher than the water breakthrough pressure
- Can be used up to 145°C
- Can be sterilised by all methods except gamma radiation

Type	Pore size µm	Dia. mm	PK	Cat. No.
TE 35	0.20	25	50	9.058 682
TE 35	0.20	47	50	9.058 683
TE 35	0.20	50	50	9.058 684
TE 36	0.45	47	50	9.058 663
TE 36	0.45	50	50	9.058 664
TE 37	1.00	25	50	9.058 642
TE 37	1.00	47	50	9.058 643
TE 37	1.00	50	50	9.058 644
TE 38	5.00	47	50	9.058 623
TE 38	5.00	50	50	9.058 624



### 3 Membrane filters, Cellulose mixed ester

Composed of cellulose acetate (~20%) and cellulose nitrate (~80%).

GE Healthcare

Type	Pore size µm	Dia. mm	PK	Cat. No.
Gridded white	0.45	25	100	9.951 015
Gridded white	0.45	47	100	9.951 016
Gridded white	0.80	25	100	9.951 018
Gridded black	0.45	47	100	9.951 017



### 4 Membrane filters, Nylon

Hydrophilic, durable and compatible with a wide range of aqueous solutions, organic solvents and for the filtration of biological preparations and media. Autoclavable at 121°C.

GE Healthcare

Pore size µm	Dia. mm	PK	Cat. No.
0.20	13	100	9.951 042
0.20	47	100	9.951 043
0.20	90	50	9.951 044
0.45	13	100	9.951 045
0.45	25	100	9.951 046
0.45	47	100	9.951 047
0.45	90	50	9.951 048
0.80	47	100	9.951 049

### 1 Membrane filters, PTFE, WTP

With PP backing.

GE Healthcare

Pore size µm	Dia. mm	PK	Cat. No.
0.20	25	100	9.951 029
0.20	47	100	9.951 030
0.50	47	100	9.951 031
1.00	37	100	9.951 032
1.00	47	100	9.951 033



### 2 Membrane filters, Cellulose nitrate, WCN

Plain white. Circles.

GE Healthcare

Pore size µm	Dia. mm	PK	Cat. No.
0.10	25	100	9.950 979
0.10	47	100	9.950 980
0.20	13	100	9.950 981
0.20	25	100	9.950 982
0.20	47	100	9.950 983
0.20	90	25	9.950 984
0.20	142	25	9.950 985
0.45	13	100	9.950 988
0.45	25	100	9.950 989
0.45	37	100	9.950 990
0.45	47	100	9.950 991
0.45	50	100	9.950 992
0.45	82	25	9.950 993
0.45	90	25	9.950 994
0.45	142	25	9.950 995
0.45	293	25	9.950 996
0.65	25	100	9.950 997
0.65	47	100	9.950 998
0.80	25	100	9.951 001
0.80	37	100	9.951 002
0.80	47	100	9.951 003
0.80	90	25	9.951 004
1.00	25	100	9.951 005
1.00	47	100	9.951 006
1.00	90	25	9.951 007
1.20	50	100	9.951 008
1.20	142	25	9.951 009
3.00	25	100	9.951 010
3.00	47	100	9.951 011
5.00	25	100	9.951 012
5.00	47	100	9.951 013
5.00	90	25	9.951 014



### 3 Membrane filters, inorganic, Anodisc®

**NEW!**

Material: Anopore®. White.

GE Healthcare

The inorganic membrane Anopore® consists of high-purity aluminium oxide and can be used for a wide range of applications. The unique material has a precise, non-deformable honeycomb structure with a narrow pore size distribution range that guarantees very efficient particle retention. In addition, the membrane has a low protein binding capacity, minimal autofluorescence, is non-toxic and supports cellular growth.

Pore size µm	Dia. mm	PK	Cat. No.
0.02	13	100	9.951 034
0.02	25	50	9.951 035
0.02	47	50	7.604 787
0.10	13	100	9.951 036
0.10	25	50	6.235 017
0.10	47	50	9.951 038
0.20	13	100	9.951 039
0.20	25	50	9.951 040
0.20	47	50	9.951 041



## Filtration/Membrane filters



### 1 Dispenser Microsart™ e.motion

Fully automated filter dispenser provides membranes at the touch of a button or hands-free by sensor once it detects approaching tweezers.

Sartorius Stedim

#### Specifications:

Dimensions (WxDxH):	165 x 213 x 204mm
Overall width:	250mm (incl. holding clips)
Dispensing speed:	0.5sec
Dispensing delay:	5sec
Max. power consumption:	10W
Power supply:	Optional 110V/230V, 50/60Hz
Weight:	2.9kg
Certificates:	CE mark and EMC directive; European Standards EN 50081-1 and -2, EN 50082-1 and -2, EN 61010

Type	PK	Cat. No.
Microsart™ e.motion	1	9.570 070
Foot switch for Microsart™ e.motion	1	9.570 069



### 2 3 Membrane Filters Microsart™ e.motion

The membrane filters suitable for use in the Microsart™ e.motion are individually sterile-sealed, without protective paper on top of each filter, in a specially designed individual package on a band.

Sartorius Stedim

For complete traceability, the membrane filter type, diameter, lot number and a unique serial number are printed on the package of each membrane filter unit.

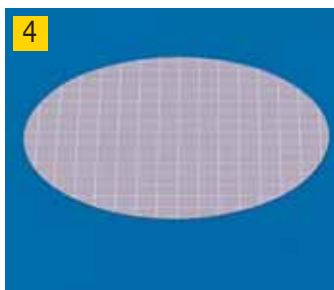
Specially developed pore structures of the 0.45µm high Flow membrane filters permit faster filtration based on their high flow rates and throughputs.

All Microsart membrane filters are "multi-fit" and can be used in all standard dispenser systems.

The membrane filters have a diameter of 47mm or 50mm, and are white, green or grey with a high-contrast 3.1mm grid.



Pore size µm	Colour	Dia. mm	PK	Cat. No.
0.45 High Flow	white/black	47	300	9.054 050
0.45 High Flow	white/green	47	300	9.054 051
0.45	white/black	47	300	9.054 052
0.45	white/black	50	300	9.054 053
0.45	grey/white	47	300	9.054 054
0.45	grey/white	50	300	9.054 055
0.45	green/dark green	47	300	9.054 056
0.45	green/dark green	50	300	9.054 057
0.45	white/green	47	300	9.054 058
0.45	white/green	50	300	9.054 059
0.65	grey/white	47	300	9.054 060
0.65	grey/white	50	300	9.054 061
0.8	grey/white	47	300	9.054 062
0.8	grey/white	50	300	9.054 063



### 4 Membrane filters Type 13005/13006, series

Cellulose nitrate. Grey membranes (black after wetting) with white grid. For detection of yeasts and moulds, particle analysis and microscopy.

Sartorius Stedim

Type	Pore size µm	Dia. mm	Description	PK	Cat. No.
13005	0.65	47	sterile	100	9.054 122
13006	0.45	47	sterile	100	9.054 132
13006	0.45	50	sterile	100	9.054 133
13006	0.45	50	non-sterile	100	9.054 139

Other types available on request.



### 5 Membrane filters, gridded Type 13806

Cellulose nitrate. Sterile, individually packed. Green with dark green grid. Optimal contrast to light or white bacteria colonies when colony counting.

Sartorius Stedim

Type	Pore size µm	Dia. mm	PK	Cat. No.
13806	0.45	47	100	9.054 202
13806	0.45	50	100	9.054 203

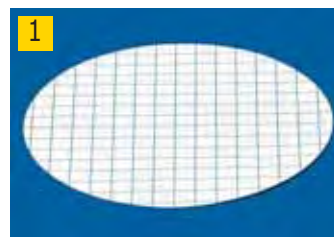


### 1 Membrane filters, gridded Type 13906 and 139H6

Cellulose nitrate. Sterile and individually packed. White with green grid. For the evaluation of microbiological and particle samples.

Sartorius Stedim

Type	Pore size µm	Dia. mm	Description	PK	Cat. No.
13906	0.45	47	Standard	100	9.054 460
13906	0.45	50	Standard	100	9.054 462
139H6	0.45	47	High flow	100	9.054 464
139H6	0.45	50	High flow	100	9.054 465



### 2 Nutrient pads

Sterile, dehydrated culture media pads in petri dishes. Once they are moistened with 3.0ml to 3.5ml of sterile and demineralised (or distilled) water they are ready-to-use immediately. All Nutrient Pad sets are supplied with the appropriate membrane filters, which are also individually sterile packed. Shelf life of the NPS 18 to 24 months at room temperature. Alternative nutrient media are available on request.

Sartorius Stedim



Type	For	Colour	Pore size µm	PK	Cat. No.
Azide	Enterococci	Green / green	0.45	100	9.055 006
Endo	E. coli + Coliforms	White / green	0.45	100	9.055 008
Caso	Colony count	Green / green	0.45	100	9.055 017
Standard TTC	Colony count	Green / green	0.45	100	9.055 010
Tergitol TTC	E. coli + Coliforms	White / green	0.45	100	9.055 011
Chapman	Staphylococci	White / green	0.45	100	9.055 032
Wort	Yeasts and moulds	Grey / white	0.65	100	9.055 013
ECD	E. coli	White / green	0.45	100	9.055 025
VLB S7-S	Pediococci and Lactobacilli	White / green	0.45	100	9.055 014
Caso	Colony count	Green / green	0.45	100	9.055 018
Glucose-Tryptone	thermophilic spore formers, mesophilic bacteria	White / green	0.45	100	9.055 020
M-FC	E. coli + Coliforms	White / green	0.45	100	9.055 022
Tomato juice	Leuconostocoenos	Green / green	0.45	100	9.055 026
Lysin	wild yeasts	Grey / white	0.65	100	9.055 015
Sabouraud	Yeast + mould	Grey / green	0.65	100	9.055 023
Mac Conkey	Enterobacteria	White / green	0.45	100	9.055 027
Cetrimide	Pseudomonas	White / green	0.45	100	9.055 031
Schaufus Pottinger	Yeast + mould	White / green	0.65	100	9.055 034
Yeast extract	Colony count	Green / green	0.45	100	9.055 037
*Schaufus Pottinger	Yeasts and moulds	White / green	1.20	100	9.055 028
Weman	Mesophilic slime-forming bacteria	Green / green	0.45	100	9.055 019
Bismuth sulphite	Salmonellae	Green / green	0.45	100	9.055 012

\* also available in 1.2µm (white/green), 0.8µm (grey/white) and 0.65µm (white/green) versions.

### LLG Syringe filters

LLG offer a line of syringe filters especially designed to provide efficient filtration of a broad variety of fluids, solvents, aqueous or inorganic solutions. Our syringe filters cover most applications in HPLC, pharmaceutical, environmental, biotechnology and food and beverage testing laboratories.

- Housing injected in Polypropylene or MABS
- Multifunctional Syringe filters equipped with Female Luer-Lock/Male Luer Lock or Male Luer Slip connections for different applications
- pre-sterilised or non sterile
- sterile products in individual hard blister
- superior pressure stability
- easy to identify because of colour code or printing

### 3 LLG-Syringe Filters, CA, non sterile

**NEW!**

Pore size µm	Dia. mm	Colour	PK	Cat. No.
0.20	13	blue	500	9.055 500
0.20	25	blue	500	9.055 501
0.45	13	yellow	500	9.055 502
0.45	25	yellow	500	9.055 503



## Filtration/Syringe filters

**1**

**1** LLG-Syringe Filters, CA, sterile

**NEW!**

Pore size $\mu\text{m}$	Dia. mm	Colour	PK	Cat. No.
0.20	13	blue	50	9.055 510
0.20	25	blue	50	9.055 511
0.45	13	yellow	50	9.055 512
0.45	25	yellow	50	9.055 513

**2**

**2** LLG-Syringe Filters, nylon, non sterile

**NEW!**

Pore size $\mu\text{m}$	Dia. mm	Colour	PK	Cat. No.
0.20	13	natural	500	9.055 520
0.20	25	natural	500	9.055 521
0.45	13	natural	500	9.055 522
0.45	25	natural	500	9.055 523

**3**

**3** LLG-Syringe Filters, RC, non sterile

**NEW!**

Pore size $\mu\text{m}$	Dia. mm	Colour	PK	Cat. No.
0.20	13	natural	500	9.055 530
0.20	25	natural	500	9.055 531
0.45	13	natural	500	9.055 532
0.45	25	natural	500	9.055 533

**4**

**4** LLG-Syringe Filters, PE, non sterile

**NEW!**

Pore size $\mu\text{m}$	Dia. mm	Colour	PK	Cat. No.
0.20	13	natural	500	9.055 540
0.20	25	natural	500	9.055 541
0.45	13	natural	500	9.055 542
0.45	25	natural	500	9.055 543

**5**

**5** Syringe filters, Minisart NML

For sterile, particle free, ultrapure filtration of small volumes of liquid up to approx. 100ml. Colour coded pore sizes for ease of identification. With hydrophilic cellulose acetate membrane for minimum adsorption. Ready-to-use immediately. With female luer-lock inlet, male luer slip outlet.

*Sartorius Stedim*
**Application:**

Sterile filtration	0.2 $\mu\text{m}$ pore size
High purification	0.45 $\mu\text{m}$ pore size
Ultrafiltration	1.2 $\mu\text{m}$ pore size
Pre-filtration	5 $\mu\text{m}$ pore size

Pore size $\mu\text{m}$	Dia. mm	Colour	PK	Cat. No.
0.20	26	blue	50	9.049 101
0.20	26	blue	500	9.049 107
0.45	26	yellow	50	9.049 102
0.45	26	yellow	500	9.049 108
0.80	26	green	50	9.049 103
0.80	26	green	500	9.049 109
1.20	26	red	50	9.049 104
1.20	26	red	500	9.049 122
5.00	26	brown	50	9.049 105
5.00	26	brown	500	9.049 123

#### 1 Syringe filters, Minisart High-Flow

Sartorius Minisart<sup>high-flow</sup> syringe attachment for sterile filtration of solutions across a wide pH range. With asymmetric polyethersulfone (PES) membrane for optimum flow performance, high throughput, low adsorption and excellent chemical resistance.

Sartorius Stedim

Pore size $\mu\text{m}$	Dia. mm	Colour	PK	Cat. No.
0.10	25	aubergine	50	9.049 866
0.20	26	blue	50	9.049 129
0.20	26	blue	500	9.049 130
0.45	26	yellow	50	9.049 865

1



#### 2 Syringe filters, Minisart-plus

The only difference between the Sartorius Minisart-plus and the standard Minisart NML is an additional glass fibre pre-filter which enables a greater filtration volume for liquids which are difficult to filter. Available sterile, single-wrapped or non-sterile, bulk-wrapped, in outer packs as indicated.

Sartorius Stedim

Pore size $\mu\text{m}$	Dia. mm	Colour	Description	PK	Cat. No.
0.20	26	blue	sterile	50	9.049 118
0.20	26	blue	non-sterile	500	9.049 126
0.45	26	yellow	sterile	50	9.049 127
0.45	26	yellow	non-sterile	500	9.049 128

2



#### 3 Syringe filters, Minisart GF

Sartorius Minisart-GF contains a single, binding agent-free, glass fibre pre-filter for ultrafiltration. Available sterile, single-wrapped or non-sterile, bulk-wrapped, in outer packs as indicated with a support achievement of 99% for 40 $\mu\text{m}$  spherical particles.

Sartorius Stedim

Dia. mm	Colour	PK	Cat. No.
26	white	50	9.049 119
26	white	500	9.049 120

3



#### 4 Syringe filters, Minisart RC

Ready-to-use units with a hydrophilic, solvent-resistant membranes made of regenerated cellulose, making sample preparation quick and easy. Suitable for aqueous/organic solutions. With female luer-lock inlet, male luer slip outlet. Non-sterile.

Sartorius Stedim

Type	Pore size $\mu\text{m}$	Dia. mm	PK	Cat. No.
Minisart RC 4	0.20	4	50	9.049 081
Minisart RC 4	0.20	4	500	9.049 082
Minisart RC 4	0.45	4	50	9.049 084
Minisart RC 4	0.45	4	500	9.049 085
Minisart RC 15	0.20	15	50	9.049 087
Minisart RC 15	0.20	15	500	9.049 088
Minisart RC 15	0.45	15	50	9.049 091
Minisart RC 15	0.45	15	500	9.049 092
Minisart RC 25	0.20	25	50	9.049 094
Minisart RC 25	0.20	25	500	9.049 095
Minisart RC 25	0.45	25	50	9.049 097
Minisart RC 25	0.45	25	500	9.049 098

4



#### 5 Syringe filters, Minisart SRP

With a chemical-resistant, hydrophobic PTFE membrane for high purification of solvents or aggressive liquids in HPLC or GC analysis. Low adsorption. With female luer-lock inlet, male luer slip outlet. Non-sterile.

Sartorius Stedim

Type	Pore size $\mu\text{m}$	Dia. mm	PK	Cat. No.
Minisart SRP 4	0.45	4	50	9.049 146
Minisart SRP 4	0.45	4	500	9.049 147
Minisart SRP 15	0.45	15	50	9.604 024
Minisart SRP 15	0.45	15	500	9.049 073
Minisart SRP 25	0.45	25	50	9.049 116
Minisart SRP 25	0.45	25	500	9.049 117

5



Minisart SRP 15 and SRP 25 are also available in 0.2 $\mu\text{m}$  pore sizes (and sterile).



### 1 In-line filters, Midisart 2000

Midisart 2000 in-line filters. For sterile ventilation of fermenters, culture vessels, etc. or to act as a water barrier between the suction flask and the vacuum pump in filtration applications. The supported PTFE membrane within a PP housing gives excellent chemical resistance. Filter in either direction (3 bar max. pressure). Sterile versions are individually wrapped, and can be autoclaved repeatedly.

*Sartorius Stedim*

Pore size $\mu\text{m}$	Dia. mm	PK	Cat. No.
0.20	62	12	9.049 151
0.20	62	25	9.049 152

### Syringe filters CHROMAFIL®

CHROMAFIL® filters are available with pore sizes of 0.2 $\mu\text{m}$  and 0.45 $\mu\text{m}$  (exceptions: PET filters have 1.2 $\mu\text{m}$ , glass fibre filters have 1 $\mu\text{m}$ ) and filter sizes of 25mm, 15mm and 3mm diameter. The small diameter filters are especially recommended for very small samples, which require extremely low dead volumes.

*MACHEREY-NAGEL*

#### Specifications

The membrane housing consists of polypropylene (PP). This material is very resistant towards most solvents and has a very low extractable substances content. Thus it can be used with almost all solvents, acids and bases (see table). The especially thick rim of the housing is ideal for use with laboratory robots (e.g. Benchmate™). Filter inlet and filter outlet can be fitted to the CHROMABOND® columns for selective sample preparation with the aid of a special adaptor. All filters can be autoclaved at 121°C and 1.1bar for 30min.

#### Applications

A choice of filter membranes made from different materials are available for solving most filtration problems:

- Cellulose mixed esters
- Cellulose acetate
- Regenerated cellulose
- Polyamide
- PTFE
- Polyester
- Glass-fibre



### 2 Syringe filters CHROMAFIL® CA

**Cellulose acetate**  
This membrane features excellent shape stability in aqueous solutions and a very low binding capacity for proteins.

*MACHEREY-NAGEL*

Type	Pore size $\mu\text{m}$	Membrane dia. mm	Housing colour top	Housing colour base	PK	Cat. No.
CA-20 / 25	0.20	25	yellow	red	100	9.049 038
CA-20 / 25	0.20	25	yellow	red	400	9.049 039
CA-45 / 25	0.45	25	natural	red	100	9.049 040
CA-45 / 25	0.45	25	natural	red	400	9.049 041

BIG-BOX: 9.049 039/9.049 041

We can supply this  
**manufacturer's**  
 whole  
**product range !**



### Syringe filters CHROMAFIL®

**General**

CHROMAFIL® syringe filters are used for filtration of suspended matter from liquid samples.

**Advantages:**

**HPLC-Certification**

available on the internet

**Polypropylene housing**

better solvent stability compared to acrylate and polystyrene filters

**Shells ultrasonically sealed, not glued**

no extractable components from glues

**Filtration in both directions** possible, the liquid cannot bypass the membranes

**Luer lock on side of entry**

safe connection on the "high pressure" side

**Luer exit**

standard luer for 3mm and 25mm filters, minispike luer with low dead volume and small OD for 15mm filters

**Deflector**

the stream of liquid is broken and distributed, and does not directly hit the membrane: this prevents rupture of the membrane

**Star-shaped distribution device**

the liquid is evenly distributed to the whole membrane surface: this results in a better utilisation of the total area; the filter is not rapidly clogged up; high flow efficiency

**Colour coded**

filters with 0.2µm pores have a yellow upper housing, for filters with 0.45µm pores this is colourless; the different membrane types are distinguished by different colours

**Low dead volume**

~80µl for 25mm, 12µl for 15mm, 5µl for 3mm.

Further CHROMAFIL® filters - please see chapter Chromatography.

MACHERY-NAGEL

### 1 Syringe filters CHROMAFIL® MV, Cellulose mixed ester

**Cellulose mixed ester**

This membrane is recommended for all filtrations in aqueous or polar organic samples.

Pore size	Membrane dia.	Housing colour top	Housing colour base	PK	Cat. No.
µm	mm				
0.20	25	yellow	yellow	100	9.049 030
0.20	25	yellow	yellow	400	9.049 031
0.45	25	colourless	yellow	100	9.049 032
0.45	25	colourless	yellow	400	9.049 033

BIG-BOX: 9.049 031/9.049 033

1



### 2 Syringe filters CHROMAFIL® RC, regenerated cellulose

**Regenerated cellulose**

This hydrophilic membrane features very low adsorption. It is recommended for filtration of aqueous and organic/aqueous liquids.

Type	Membrane dia.	Pore size	Housing colour top	Housing colour base	PK	Cat. No.
	mm	µm				
RC-20 / 25	25	0.20	yellow	blue	100	9.049 042
RC-20 / 25	25	0.20	yellow	blue	400	9.049 043
RC-45 / 25	25	0.45	natural	blue	100	9.049 044
RC-45 / 25	25	0.45	natural	blue	400	9.049 046

BIG-BOX: 9.049 043/9.049 046

2



### 3 Syringe filters CHROMAFIL® PA, Polyamide

**Polyamide**

Nylon - this is a rather hydrophilic membrane; it is recommended for filtration of aqueous and organic/aqueous medium polar liquids.

Type	Pore size	Membrane dia.	Housing colour top	Housing colour base	PK	Cat. No.
	µm	mm				
AO- 20 / 25	0.20	25	yellow	green	100	9.049 049
AO- 20 / 25	0.20	25	yellow	green	400	9.049 050
AO- 45 / 25	0.45	25	natural	green	100	9.049 051
AO- 45 / 25	0.45	25	natural	green	400	9.049 052

BIG-BOX: 9.049 050/9.049 052

3



1



### 1 Syringe filters CHROMAFIL® PTFE, Polytetrafluoroethylene

#### Polytetrafluoroethylene

MACHEREY-NAGEL

A hydrophobic membrane. Ideal for filtration of non-polar liquids and gases. It is very resistant to various solvents as well as acids and bases. By flushing with alcohol, followed by water, the originally hydrophobic membrane can be made more hydrophilic.

Type	Pore size µm	Membrane dia. mm	Housing colour top	Housing colour base	PK	Cat. No.
O-20 / 25	0.20	25	yellow	natural	100	9.049 057
O-20 / 25	0.20	25	yellow	natural	400	9.049 058

BIG-BOX: 9.049 058

2



### 2 Syringe filters CHROMAFIL® PET

This membrane features outstanding chemical resistance and is suited for polar as well as non-polar solvents. This all-purpose membrane is recommended for filtration of aggressive media, for dust and aerosol analyses, ultrapurification of solvents etc. It is very well suited for TOC/DOC determination. The membrane is not cytotoxic and does not inhibit the growth of microorganisms and cells. Polyester filters with integrated glass fibre prefilters (GF/PET): recommended for solutions with a high load of particulate matter or for highly viscous solutions.

MACHEREY-NAGEL

MS: Mini tip on the outlet

Type	Pore size µm	Membrane dia. mm	Housing colour top	Housing colour base	PK	Cat. No.
PET- 20 / 15 MS	0.20	15	yellow	orange	100	9.049 065
PET- 45 / 15 MS	0.45	15	natural	orange	100	9.049 066
PET- 20 / 25	0.20	25	yellow	orange	100	9.049 067
PET- 20 / 25	0.20	25	yellow	orange	400	9.049 068
PET- 45 / 25	0.45	25	natural	orange	100	9.049 069
PET- 45 / 25	0.45	25	natural	orange	400	9.049 070
GF / PET- 20 / 25	1.0/0.20	25	blue	orange	100	9.049 079
GF / PET- 45 / 25	1.0/0.45	25	black	orange	100	9.049 080

BIG-BOX: 9.049 068/9.049 070

3



### 3 Syringe filters CHROMAFIL® PES, Polyethersulphone

#### Polyethersulphone

MACHEREY-NAGEL

Hydrophilic membrane for aqueous and light organic solutions with a low binding capacity for proteins. This membrane has extremely low extractable levels and is ideal for ionic chromatography and organic solutions.

Type	Pore size µm	Membrane dia. mm	Housing colour top	Housing colour base	PK	Cat. No.
PES-20 / 25	0.20	25	yellow	amber	100	9.049 074
PES-500 / 25	5.00	25	red	amber	100	9.049 076

4



### 4 Syringe filters CHROMAFIL® GF, glass-fibre

#### Glass-fibre

MACHEREY-NAGEL

The nominal pore size of these filters is 1µm. They can be used for solutions with high particulate loads or for highly viscous solutions (e.g. soil samples, fermentation broths) either alone or in combination with other CHROMAFIL® filters. When membrane filters are combined with glass-fibre filters, they prevent clogging of the membrane. Used alone, glass-fibre filters allow higher flow rates than a 0.45µm filter for instance.

Type	Pore size µm	Membrane dia. mm	Housing colour top	Housing colour base	PK	Cat. No.
GF-100 / 25	1.00	25	yellow	black	100	9.049 078

### 1 Syringe filters for cleaning, non-sterile

Autoclavable. Cellulose acetate membrane (CA).

Nalgene

Applications: Cleaning of small volumes of immunological reagents, enzymes and antibodies.

Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
1 to 2	C.A. / PP	0.20	4	100	9.046 191



### 2 Syringe filters, non-sterile, Type 176

Autoclavable.

Nalgene

Applications: Pre-filtration and ultrafiltration of aqueous solutions, HPLC and GC solvents and DMSO.

Type	Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
176	0.5 to 1	Nylon / PP	0.20	4	100	9.046 196
176	0.5 to 1	Nylon / PP	0.45	4	100	9.046 197



### Syringe filters, SFCA, sterile

Individually blister-packed, colour-coded blue.

Nalgene

Applications: Sterile filtration of microbiological media, proteinaceous solutions and tissue culture reagents.

Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
10 to 50	SFCA / Acrylic	0.20	25	50	9.046 166

### 3 Syringe filters, SFCA, sterile

Individually blister-packed, colour-coded blue.

Nalgene

Applications: Pre-filtration and ultrafiltration of aqueous solutions and alcohols, pre-filtration of serum and other samples containing protein. Note: do not autoclave.

Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
10 to 50	SFCA / Acrylic	0.45	25	50	9.046 167



### 4 Syringe filters to series filtration, sterile

Individually blister-packed, colour-coded blue.

Nalgene

Areas of application: Pre-filtration, series filtration and ultrafiltration of aqueous solutions, serum and alcohols. Separation of cell residues. Note: do not autoclave.

Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
10 to 50	C.A. / Acrylic	0.80	25	50	9.046 168





### 1 Syringe filters, Type 195, sterile

**NEW!**

Individually blister-packed.

Applications: Sterilization of tissue culture media, ultrafiltration of aqueous solutions, HPLC solvents, alcohols and DMSO. Hydrophilic.

Nalgene

Type	Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
195	10 to 50	Nylon / PP	0.45	25	50	<b>7.047 850</b>
195	10 to 50	Nylon / PP	0.20	25	50	<b>9.046 176</b>



### 2 Syringe filters, Type 191, non-sterile

Colour-coded blue.

Applications: Pre-filtration, serial filtration and ultrafiltration of aqueous solutions, serum and alcohols. Removal of cell residues.

Nalgene

Type	Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
191	10 to 50	SFCA / Acrylic	0.20	25	50	<b>9.046 171</b>
191	10 to 50	SFCA / Acrylic	0.45	25	50	<b>9.046 172</b>
191	10 to 50	C.A. / Acrylic	0.80	25	50	<b>9.046 173</b>



### 3 Syringe filters, non-sterile

Autoclavable, colour-coded red.

Applications: Cleaning of aqueous solutions, HPLC solutions, alcohols and DMSO. Hydrophilic.

Nalgene

Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
10 to 50	Nylon / PP	0.20	25	50	<b>9.046 181</b>



### 4 Syringe filters, non-sterile

Autoclavable, colour-coded black.

Applications: Pre-filtration and ultrafiltration of aqueous solutions, HPLC solutions, alcohols and DMSO. Hydrophilic.

Nalgene

Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
10 to 50	Nylon / PP	0.45	25	50	<b>9.046 182</b>



### 5 Syringe filters, Type 199, PTFE, non-sterile

Autoclavable, colour-coded black.

Applications: Pre-filtration and ultrafiltration of organic solutions and alcohols, sterile filtration of air or other gases.

Nalgene

Type	Sample volume ml	Membrane / housing	Pore size $\mu\text{m}$	Membrane dia. mm	PK	Cat. No.
199	10 to 50	PTFE / PP	0.20	25	50	<b>9.046 187</b>
199	10 to 50	PTFE / PP	0.45	25	50	<b>9.046 188</b>



### 1 Syringe filters, disposable, ReZist®

- Hydrophobic PTFE-membrane, laminated with polypropylene
- first class chemical resistance opposite to common organic HPLC solvents

GE Healthcare

#### Application:

Filtration of aggressive solutions.

GF9 membrane to the prefiltration of loaded solutions.



Type	Pore size µm	Dia. mm	Connection in / out	PK	Cat. No.
13 PTFE	0.20	13	LLF/Mini-Tip	100	9.049 981
13 PTFE	0.45	13	LLF/Mini-Tip	100	9.049 982
30 PTFE-S	0.20	30	LLF/LLM	50	9.049 955
30 PTFE	0.20	30	LLF/LLM	100	9.049 961
30 PTFE	0.20	30	LLF/LLM	500	9.049 990
30 PTFE	0.45	30	LLF/LLM	100	9.049 962
30 PTFE	0.45	30	LLF/LLM	500	9.049 991
30 PTFE	1.00	30	LLF/LLM	100	9.049 963
30 PTFE	1.00	30	LLF/LLM	500	9.049 992
30 PTFE	5.00	30	LLF/LLM	100	9.049 964
30 PTFE	5.00	30	LLF/LLM	500	9.049 993
30/GF92		30	LLF/LLM	100	9.049 996
30/GF92		30	LLF/LLM	500	9.049 997

LLF = luer-lock female

LLM = luer-lock male

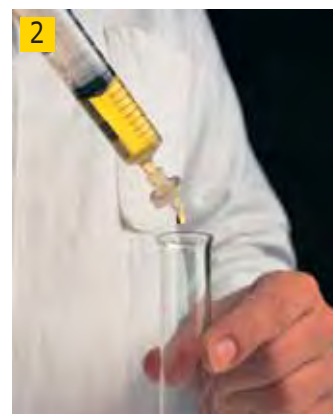
### 2 Inorganic membrane syringe filters, Anotop®

The Anopore® inorganic membrane consists of high-purity aluminium oxide and can be used for a wide range of applications. This unique material has a precise, non-deformable, honeycomb structure with a relatively consistent pore size that guarantees very efficient particle retention. In addition, the membrane has a low protein binding capacity, minimal autofluorescence, is non-toxic and supports cellular growth.

GE Healthcare

- Anotop® 10 Plus/25 Plus contains a glass microfiber prefilter
- Housing: PP
- Extractable materials: low
- Inlet connection: Female luer lock
- Outlet connection: Male slip luer

Housing diameter: 10mm  
 Extractable substances: low  
 Retained volume: < 20µl



Type	Pore size µm	Description	Membrane dia. mm	Residual volume ml	PK	Cat. No.
Anotop® 10	0.02	non-sterile	10	0.02	50	9.951 186
Anotop® 10	0.1	non-sterile	10	0.02	50	9.951 187
Anotop® 10	0.2	non-sterile	10	0.02	50	9.951 188
Anotop® 10	0.02	sterile	10	0.02	50	9.951 189
Anotop® 10	0.1	sterile	10	0.02	50	9.951 190
Anotop® 10	0.2	sterile	10	0.02	50	9.951 191
Anotop® 10 Plus	0.02	with prefilter	10	0.03	50	9.951 192
Anotop® 10 Plus	0.1	with prefilter	10	0.03	50	9.951 193
Anotop® 10 Plus	0.2	with prefilter	10	0.03	50	9.951 194
Anotop® 10 Plus	0.02	with prefilter, sterile	10	0.03	50	9.951 195
Anotop® 10 Plus	0.1	with prefilter, sterile	10	0.03	50	9.951 196
Anotop® 10 Plus	0.2	with prefilter, sterile	10	0.03	50	9.951 197
Anotop® 25	0.02	non-sterile	25	0.15	50	9.951 198
Anotop® 25	0.1	non-sterile	25	0.15	50	9.951 199
Anotop® 25	0.2	non-sterile	25	0.15	50	9.951 200
Anotop® 25	0.2	non-sterile	25	0.15	200	9.951 201
Anotop® 25	0.02	sterile	25	0.15	50	9.951 202
Anotop® 25	0.1	sterile	25	0.15	50	9.951 203
Anotop® 25	0.2	sterile	25	0.15	50	9.951 204
Anotop® 25 Plus	0.02	with prefilter	25	0.20	50	9.951 205
Anotop® 25 Plus	0.1	with prefilter	25	0.20	50	9.951 206
Anotop® 25 Plus	0.2	with prefilter	25	0.20	50	9.951 207
Anotop® 25 Plus	0.2	with prefilter	25	0.20	200	9.951 208
Anotop® 25 Plus	0.02	with prefilter, sterile	25	0.20	50	9.951 209
Anotop® 25 Plus	0.1	with prefilter, sterile	25	0.20	50	9.951 210
Anotop® 25 Plus	0.2	with prefilter, sterile	25	0.20	50	9.951 211

### Ready-to-use filter units, Specifications

For the ready-to-use filter units only virgin raw material is used. This ensures that there is no interaction with the sample to be filtered, provided that the units are used properly. The filter units are intended for laboratory use only and at temperatures up to 60°C.

Note: If syringes with a volume <10 ml are used, a pressure could be created which exceeds the max. operating pressure (700 kPa/7 bar) of the filter unit.

Filters with integral pre-filter have a higher hold-up volume.

EtO-sterilized = endotoxin free according to LAL-Test (USPXXIII),

Sensitivity: 0.25EU/ml.

**1**


### 1 Disposable vacuum filter units FP

GE Healthcare

#### Housing type A + B:

Type:	30mm
Effective filter area:	5.7cm <sup>2</sup>
Hold-up volume after air cleaning:	≤ 50µl
Inlet:	Luer-Lock Inner cone (female)
Outlet A:	Luer slip cone (male)
Outlet B:	Luer-Lock outer cone (male)

Description	Housing	PK	Cat. No.
FP 30/5.0 CN-S	A	50	<b>9.049 911</b>
FP 030/0.45 CA-S	A	50	<b>9.049 912</b>
FP 030/0.2 CA-S	A	50	<b>9.049 913</b>
FP 30/0.8 CA-S	A	50	<b>9.049 915</b>
FP 030/0.8 CA	A	50	<b>9.049 936</b>
FP 030/1.2 CA-S	A	50	<b>9.049 916</b>
FP 30/1.2 CA	A	50	<b>9.049 937</b>
FP 030/0.2 PTFE-S	A	50	<b>9.049 918</b>
FP 30/5.0 CN	A	500	<b>9.603 581</b>
FP 030/5.0 CN	A	50	<b>9.049 931</b>
FP 030/0.45 CA	A	500	<b>9.049 933</b>
FP 030/0.45 CA	A	50	<b>9.049 932</b>
FP 030/0.8 CA	A	100	<b>9.049 927</b>
FP 30/0.2 CA	A	500	<b>9.603 584</b>
FP 030/0.2 CA	A	50	<b>9.049 934</b>
FP 30/0.2 CA	A	100	<b>9.603 585</b>
FP 030/0.2 CA-S	B	50	<b>9.049 917</b>

**2**


### 2 3 4 Syringe filters GD/X®

GE Healthcare

Whatman GD/X syringe filters are the perfect solution for samples with high viscosity or samples that contain particles. Four filter layers decrease clogging and therefore filter exchange during processing is avoided.

These filters allow 3 to 7 times higher throughput than traditional types. 25mm diameter. Non-sterile.

Pore size µm	Membrane	PK	Cat. No.
0.20	Nylon	150	<b>9.056 820</b>
0.45	Nylon	150	<b>9.056 821</b>
0.20	PVDF	150	<b>9.056 822</b>
0.45	PVDF	150	<b>9.056 823</b>
0.20	RC	150	<b>9.056 807</b>
0.20	RC	1500	<b>9.056 808</b>
0.45	RC	150	<b>9.056 809</b>
0.45	RC	1500	<b>9.056 810</b>

**3**

**4**


### 1 Syringe filters, disposable, Spartan® range

Versatile use - ready-to-use filter units with a hydrophilic, low protein-binding membrane made of regenerated cellulose. First class chemical resistance against the usual aqueous and organic HPLC solvents

- Spartan® 13 and 30 are tested and certified for UV adsorbance substances at wavelengths of 210nm and 254nm with water, methanol and acetonitrile;
- Spartan® 13 has an extremely low hold up volume; <10µl, for optimal filtration

GE Healthcare

1



**Applications:**

Ideal for HPLC sample preparation to achieve reproducible results. Carefully controlled manufacture guarantees lowest traces of UV- absorbing, extractable components.

Type	Dia. mm	Pore size µm	Connection in / out	PK	Cat. No.
13 RC	13	0.20	LLF/LM	100	9.049 948
13 RC	13	0.20	LLF/LM	500	9.049 980
13 RC	13	0.20	LLF/Mini-Tip	100	9.049 943
13 RC	13	0.20	LLF/Mini-Tip	500	9.049 951
13 RC	13	0.45	LLF/LM	100	9.049 949
13 RC	13	0.45	LLF/Mini-Tip	100	9.049 944
13 RC	13	0.45	LLF/Mini-Tip	500	9.049 950
30 RC	30	0.20	LLF/LM	100	9.049 941
30 RC	30	0.20	LLF/LM	500	9.049 965
30 RC	30	0.45	LLF/LM	50	9.049 960
30 RC	30	0.45	LLF/LM	100	9.049 942
30 RC	30	0.45	LLF/LM	500	9.049 959

LLF = luer-lock female  
LM = luer male

### 2 Disposable filtration discs, Polydisc TF™

Mounted in a robust PP housing. All have a low hold-up volume. Dimensions: (diameter x length) 53mm x 46mm. Connections: For 6mm to 10mm diameter bore tubing. Also accept male luer slip.

- Hydrophobic PTFE membrane
- Pore sizes 0.1µm, 0.2µm, 0.45µm, 1.0µm
- 1µm pore size unit has a PP prefilter
- Autoclavable at 131°C for 20 minutes
- Maximum operating pressure 4.0 bar

GE Healthcare

2



Suitable for chemically aggressive solutions, reagents and organic solvents. Ideal for protective venting, in-line filtration and isolation applications. Non-sterile.

Pore size µm	PK	Cat. No.
0.10	10	9.951 096
0.20	10	9.951 097
0.45	10	9.951 098
1.00	10	9.951 099

### 3 Puradisc™ 25 series syringe filters

Polysulphone membrane in acrylic housing. Suitable for sterilisation and filtration of tissue culture media, antibody and enzyme solutions and aqueous protein solutions. Sterile filters are individually wrapped.

GE Healthcare

3



With 25mm filter syringe which has a low hold-up volume to provide maximum sample recovery. Connections: female luer lock, male slip luer connector. Filtration capacity up to 100ml.

Type	Pore size µm	Membrane	PK	Cat. No.
Sterile	0.20	PES	50	9.951 061
Sterile	0.45	PES	50	9.951 062
Non-sterile	0.20	PS	200	9.951 063
Non-sterile	0.45	PS	200	9.951 064

## Filtration/Syringe filters



### 1 2 Syringe filters Puradisc 4™

For the filtration of sample volumes below 2ml. High sample recovery is achieved because of the extremely low residual volume, which is very important when dealing with expensive samples. Available with a wide variety of membranes, both sterile and non-sterile.

GE Healthcare

- Housing PP
- Filtration area 0.2cm<sup>2</sup>
- Max. pressure 5 bar
- Residual volume <10µl
- Inlet female luer-lock
- Outlet luer cone or extended tip
- Autoclavable at 121°C

Media type	Pore size µm	Type	PK	Cat. No.
PVDF	0.2	non sterile	100	9.951 222
PVDF	0.2	sterile	50	9.951 221
PVDF	0.45	non sterile	100	9.951 224
PVDF w/t	0.2	non sterile	50	9.951 213
PVDF w/t	0.45	non sterile	50	9.951 215
PTFE	0.2	non sterile	100	9.951 252
PTFE	0.45	non sterile	100	9.951 253
Nylon	0.2	sterile	50	9.951 264
Nylon	0.2	non sterile	100	9.951 265
Nylon	0.45	sterile	100	9.951 266



### 3 Syringe filters Puradisc 13™

Membrane with 13mm diameter.

GE Healthcare

Media type	Pore size µm	Type	PK	Cat. No.
PVDF	0.2	sterile	50	9.951 226
PVDF	0.2	non-sterile	100	9.951 227
PVDF	0.45	sterile	50	9.951 228
PVDF	0.45	non-sterile	100	9.951 229
PVDF w/t	0.2	sterile	50	9.951 217
PVDF w/t	0.2	non-sterile	50	9.951 218
PVDF w/t	0.45	non-sterile	50	9.951 220
PTFE	0.1	non-sterile	100	9.951 255
PTFE	0.2	non-sterile	100	9.951 256
PTFE	0.45	non-sterile	100	9.951 257
PTFE	1.0	non-sterile	100	9.951 258
PTFE w/t	0.2	non-sterile	50	9.951 249
PTFE w/t	0.45	non-sterile	50	9.951 250
Polysulphone	0.2	sterile	50	9.951 238
Polysulphone	0.2	non-sterile	100	9.951 239
Polysulphone	0.45	sterile	50	9.951 240
Polysulphone	0.45	non-sterile	100	9.951 241
Polypropylene	0.2	non-sterile	100	9.951 245
Polypropylene	0.45	non-sterile	100	9.951 246
Nylon	0.2	sterile	50	9.951 267
Nylon	0.2	non-sterile	100	9.951 268
Nylon	0.45	sterile	100	9.951 269
Glass microfibre media GF/A	1.6*	non-sterile	100	9.951 275
Glass microfibre media GF/C	1.2*	non-sterile	100	9.951 276
Glass microfibre media GF/D	2.7*	non-sterile	100	9.951 277
Glass microfibre media GF/F	0.7*	non-sterile	100	9.951 278

\* Particle retention rating



### 4 Puradisc™ 25 NYL series syringe filters

Nylon membrane in polypropylene casing. For water and solvent-based HPLC sample filtration.

GE Healthcare

Type	Pore size µm	PK	Cat. No.
Non-sterile	0.20	50	9.951 065
Non-sterile	0.20	200	9.951 066
Non-sterile	0.45	50	9.951 067
Non-sterile	0.45	200	9.951 068

### 1 Puradisc™ 25 TF series syringe filters

PTFE membrane in polypropylene casing. Suitable for HPLC sample filtration (solvent-based). Ultra-cleaning of organic solvents and aggressive solutions, including acids and alkalis.

GE Healthcare

Type	Pore size $\mu\text{m}$	PK	Cat. No.
Non-sterile	0.20	50	9.951 069
Non-sterile	0.20	200	9.951 070
Non-sterile	0.45	50	9.951 071
Non-sterile	0.45	200	9.951 072
Non-sterile	1.00	50	9.951 073



### 2 Puradisc™ 25 PP series syringe filters

Polypropylene membrane and casing. Suitable for HPLC sample filtration (water-based). Purification of reagents and buffers. Filtration of aggressive water solutions, such as acids and alkalis.

GE Healthcare

Type	Pore size $\mu\text{m}$	PK	Cat. No.
Non-sterile	0.20	50	9.951 074
Non-sterile	0.20	200	9.951 075
Non-sterile	0.45	50	9.951 076
Non-sterile	0.45	200	9.951 077



### 3 Syringeless filters, Autovial™

Provides a single disposable, manual pressure filtration system which is fast and easy to use in sample preparation.

GE Healthcare

- Built-in pre-filter for 'difficult' samples
- Minimal waste

Comprise a graduated, medical grade PP barrel, maximum capacity 12ml with 3cm<sup>2</sup> filter at the base, luer slip outlet and plunger. Non-sterile

Membrane	Pore size $\mu\text{m}$	PK	Cat. No.
PVDF	0.2	50	9.951 174
PVDF	0.45	50	9.951 175
Nylon	0.45	50	9.951 176
PTFE	0.2	50	9.951 177
PTFE	0.45	50	9.951 178



### 4 Syringeless filters, UniPrep™

Comprise a 5ml capacity, medical grade polypropylene test tube which initially holds the sample, and hollow plunger incorporating a filter at the tip. In use the sample is manually pressure filtered into the plunger which then acts as a storage vial for the filtered sample. The plunger has a removable cap. Non-sterile.

GE Healthcare

Membrane	Pore size $\mu\text{m}$	PK	Cat. No.
Nylon	0.45	50	9.951 180
PTFE	0.45	50	9.951 181
Glass microfibre	0.45	50	9.951 179



## Filtration/Syringe filters

**1**

**2**


### 1 2 Syringeless filters Mini-UniPrep™

The Whatman Mini-UniPrep™ filter provides a quick and easy means of removing particles from HPLC samples. In comparison to other methods the amount of time required for sample preparation is reduced to one third. Mini-Uni-Prep™ is a ready-to-use filter unit consisting of a 0.4ml chamber and a plunger. The plunger contains a filtration membrane at one end and a cap with septum at the other. The plunger is pressed through the sample in the chamber. The pressure generated forces the filtrate into the plunger reservoir, with air escaping through the vent hole until the locking mechanism engages to form an airtight seal. The unit can now be placed in any autosampler and the sample analysed. Alternatively the sample can also be removed manually with a suitable syringe and injected into the HPLC instrument.

*GE Healthcare*

Membrane	Pore size $\mu\text{m}$	PK	Cat. No.
PTFE	0.2	100	9.056 824
RC	0.2	100	9.056 825
RC	0.45	100	9.056 826
PVDF	0.45	100	9.056 827
DpPP	0.45	100	9.056 828
GMF	0.45	100	9.056 829
Nylon	0.45	100	9.056 830
PTFE	0.45	100	9.056 831
PP	0.45	100	9.056 832
RC	0.2	1000	9.056 833
RC	0.45	1000	9.056 834
PVDF	0.45	1000	9.056 835
Nylon	0.45	1000	9.056 836
PTFE	0.45	1000	9.056 837
PP	0.45	1000	9.056 838

### Syringeless filters, slit septa Mini-UniPrep™

Slit septum cap enables Mini-UniPrep use with current robotics on HPLC instruments for high throughput automation. Durable yet flexible slit septum cap has been specially designed for instruments with sensitive sampling needs. Sample evaporation is minimal.

*GE Healthcare*

Membrane	Pore size $\mu\text{m}$	PK	Cat. No.
PVDF	0.2	100	9.056 840
Nylon	0.2	100	9.056 841
PTFE	0.2	100	9.056 842
Nylon	0.45	100	9.056 843
PTFE	0.45	100	9.056 844

### Syringeless filters, amber Mini-UniPrep™

Amber colorant prevents photo degradation of light sensitive samples. Same colorant used in pharmaceutical containers designed to meet USP specifications for light resistance. Translucent amber chamber and plunger enable easy visual inspection.

*GE Healthcare*

Membrane	Pore size $\mu\text{m}$	PK	Cat. No.
Nylon	0.2	100	9.056 845
PVDF	0.45	100	9.056 846
PTFE	0.45	100	9.056 847

**3**


### 3 Compressor for Mini-UniPrep™ syringeless filters

The compressor can process up to 6 samples at any one time, further improving sample processing time.

*GE Healthcare*

Type	PK	Cat. No.
Compressor Mini-UniPrep™	1	9.056 839

### 1 Disposable filtration capsules, Hepa-Cap

Laminated hydrophobic glass microfibre filter.

GE Healthcare

- Maximum operating pressure 4.1 bar
- Wide range of chemical compatibility
- High loading capacity and high through-put filtration media
- 99.97% of particles of 0.3µm or larger are retained
- Autoclavable at up to 132°C for one hour

Ideal for the sterilisation of large volumes of air at low pressure. Available in two sizes, depending upon the volume of air or gas to be filtered. Non-sterile. Supplied singly. Autoclavable.



Type	PK	Cat. No.
Hepa-Cap 36	1	9.951 116
Hepa-Cap 75	1	9.951 117

### 2 Disposable filtration capsules, Carbon cap

For use in pressure lines or vacuum pump exhausts. High-purity polypropylene housing with nozzle for connection to 12mm i.d. tubing. Contains highly pure activated charcoal granules and a folded HEPA filter at the base of the unit that retains 99.97% of all particles <0.3µm.

GE Healthcare

Type	Width mm	Length mm	PK	Cat. No.
Carbon cap 75	66	96	1	9.951 135
Carbon cap 150	66	183	1	9.951 136



### 3 Disposable filtration capsules, VacuGuard™ 150

Mounted in a robust PP housing. All have a low hold-up volume.

GE Healthcare

Dimensions: (diameter x length) 53mm x 46mm. Connections: For 6mm to 10mm diameter bore tubing. Also accept male luer slip.

- Hydrophobic PTFE membrane and choice of chemical trap:
- Activated carbon with 82000m<sup>2</sup> filtration area removes organic vapours and radioactive particles
- Molecular sieve - removes water from organic and alkaline air streams
- Desiccant removes water from acidic air streams
- 99.99% of particulates 0.1µm or larger are retained
- Maximum operating pressure 1 bar (wet gas)/4.2 bar (dry gas)

For vacuum pump protection from corrosive vapours and contaminants. With end connectors for 12mm bore tubing. Supplied singly.



Description	PK	Cat. No.
Activated carbon	1	9.951 137
Molecular sieve	1	9.951 138
Desiccant	1	9.951 139

### 4 Disposable filtration capsules, Polycap TF™

Hydrophobic PTFE membrane.

GE Healthcare

- 1µm capsules incorporate a PP prefilter
- Autoclavable up to 132°C maximum

For applications involving organic solvents and chemically aggressive solutions.



Type	Description	Porosity µm	PK	Cat. No.
Polycap 36 TF	non-sterile	0.2	1	9.951 126
Polycap 36 TF	non-sterile	1.0	1	9.951 127
Polycap 75 TF	non-sterile	0.2	1	9.951 128
Polycap 75 TF	non-sterile	1.0	1	9.951 129



### 1 Selectron filter holder FP 025/1

Selectron filter holder FP 025/1 in polysulphone for use with syringes for analytical and preparative use.

GE Healthcare

Filtration-media must be selected separately.

#### Applications:

Clarification and sterile filtration of aqueous liquids and gases.

#### Specifications:

Max. pressure:	7 bar
Max. temperature:	180°C
Filter dia.:	25mm

Type	PK	Cat. No.
FP 025/1	10	9.603 181



### 2 Membrane filter holders, syringe, Type 165

Type 165. PC. Reusable filter holder, without filter. Filter has to be selected separately. For particle removal, sterile filtration of aqueous solutions or for venting of sterile vessels. Autoclavable. With Luer connection.

Sartorius Stedim

Type	Dia. mm	PK	Cat. No.
165	13	12	9.049 241
165	25	12	9.049 242



### 3 Selectron® filter holder FP 050/1

#### Application:

Selectron filter holders FP 050/1 are for sampling and for flow rate applications. Ideal for filtrations using peristaltic pumps and for gas sterilization.

GE Healthcare

#### Specifications:

Max. pressure:	7 bar
Max. temperature:	180°C
Filter diameter:	50mm

Type	PK	Cat. No.
FP 050/1	1	9.603 205



### 4 5 Vacuum manifolds, UniVac series

Specially developed for Whatman micro plates. Provides a uniform pressure drop in each well ensuring that no residual liquid remains in the filter plate.

GE Healthcare

**UniVac 1™:** Single station unit for applications where the filtrate is not used for further analyses and can be drained. With stopcock to control vacuum from an accessory vacuum pump.

**UniVac 3™:** Designed for transferring liquid from the filter microplate to the corresponding well of an accessory collection plate for further analysis. Constructed in PTFE-coated aluminium for resistance to most aggressive solutions (an all PTFE version is also available) and allowing cleaning/sterilisation by common laboratory methods. With stopcock and gauge for precise and repeatable control of vacuum from an accessory vacuum pump.

Type	PK	Cat. No.
UniVac 1, polyurethane	1	9.951 598
UniVac 3, aluminium	1	9.951 601
UniVac 3, PTFE	1	9.951 602





### 1 Filtration microplates, UniFilter® 350

Filtration device which is easy to insert and ready to use on 96-well microplate formats. Available in well capacities of 350µl, 800µl and 2000µl. Each well has a filter individually sealed into the base below which runs a unique drip director to accurately deliver the filtrate into the receiving well of an accessory microplate below with no splashing or cross contamination. A wide range of filter media are offered to allow compatibility with a variety of sample types. The plates are made of polystyrene (PS) for general applications with biological samples or glass-fibre reinforced polypropylene (GPP) for organic solutions.

GE Healthcare



The 350µl plates are mainly used for screening large volumes of biological samples and for protein kinase analysis, receptor binding assays and cell immobilisation. 800µl and 2000µl plates are used for high throughput screening sample preparation and clean up. Typical applications include cell-based immunoassay, nucleic acid isolation, sterile filtration of biological samples and compound library generation using parallel synthesis procedures. Supplied in pack quantities as outlined below.

Type	Capacity µl	Colour	Filter media	Drip director type	PK	Cat. No.
UniFilter® 350	350	PS / white	GF/B	Mesh	50	9.951 568
UniFilter® 350	350	PS / white	GF/C (hydrophobic)	Mesh	50	9.951 569
UniFilter® 350	350	PS / white	GF/C	Mesh	50	9.951 570
UniFilter® 350	350	PS / white	P81	Mesh	50	9.951 572
UniFilter® 350	350	PS / white	GF/B	Short	50	9.951 576
UniFilter® 350	350	PS / white	GF/C (hydrophobic)	Short	50	9.951 577
UniFilter® 350	350	PS / white	GF/C	Short	50	9.951 578
UniFilter® 350	350	PS / white	P81	Short	50	9.951 580
UniFilter® 350	350	PS / white	PVDF 0.45 µm (hydrophilic)	Short	50	9.951 581
UniFilter® 350	350	PS / white	PVDF 0.45 µm (hydrophobic)	Short	50	9.951 582

### 2 Filter crucibles, borosilicate glass 3.3

Borosilicate glass 3.3. With sintered disc filter as outlined below.

Capacity ml	Porosity	PK	Cat. No.
15	1	1	9.052 060
15	2	1	9.052 061
15	3	1	9.052 062
15	4	1	9.052 063
15	5	1	9.052 064
30	1	1	9.052 036
30	2	1	9.052 037
30	3	1	9.052 038
30	4	1	9.052 039
30	5	1	9.052 040
50	1	1	9.052 041
50	2	1	9.052 042
50	3	1	9.052 043
50	4	1	9.052 044
50	5	1	9.052 065



### 3 Filter crucibles, DURAN®

With sintered glass filter disc at base, as outlined below. Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

DURAN Group

Capacity ml	Porosity	Dia. mm	PK	Cat. No.
30	1	30	1	9.052 021
30	2	30	1	9.052 022
30	3	30	1	9.052 023
30	4	30	1	9.052 024
30	5	30	1	9.052 025
50	1	40	1	9.052 031
50	2	40	1	9.052 032
50	3	40	1	9.052 033
50	4	40	1	9.052 034



### 4 Adapters for filter crucibles, borosilicate glass 3.3.

Borosilicate glass 3.3.

Dia. mm	Stem dia. mm	PK	Cat. No.
34	10	1	9.052 213
42	10	1	9.052 214
50	10	1	9.052 215





### 1 Adapters, Filter Crucible, Duran®

Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

DURAN Group

Dia. mm	Height mm	PK	Cat. No.
27	110	1	9.052 216
34	110	1	9.052 222
41	125	1	9.052 226
50	132	1	9.052 232



### 2 Filter holders, DURAN®

DURAN®. Dismountable, modular filter holders with screwthreaded top manifold, PP funnel outlet and two FKM seals. Accessory sintered filter discs (9.052 941 to 9.052 954) are screwed in between two FKM seals. The filter discs are easy to replace. Membrane or paper filters can be stretched across the disc. Filter plates must be ordered separately.

DURAN Group

Capacity ml	Plate dia. mm	Thread dia. mm	PK	Cat. No.
30	24	28	1	9.052 903
250	50	54	1	9.052 905
1000	90	95	1	9.052 910



### 3 Filter holders, glass, top manifold only, DURAN®

DURAN®. For use in dismountable filter holders. With screwthread, without PP outlet funnel, filter disc or FKM rubber seals.

DURAN Group

Capacity ml	Thread dia. mm	PK	Cat. No.
30	28	1	9.052 913
250	54	1	9.052 915
1000	95	1	9.052 920



### 4 Filter holders, outlet funnels, PP

PP. For use with dismountable filter holders. With screwthread to fit respective top manifold. Without manifold, sintered filter disc or FKM rubber seals.

DURAN Group

Neck thread GL	Thread dia. mm	PK	Cat. No.
28	10	1	9.052 973
54	12	1	9.052 975
95	18	1	9.052 980



### 5 FKM seals

For use in dismountable filter holders. Without PP outlet funnel, filter disc or top manifold.

DURAN Group

For dia. mm	PK	Cat. No.
24	1	9.052 923
50	1	9.052 925

### 1 Filter holders, glass, sintered discs

Sintered filter discs with glass rim. For use in dismountable filter holders. Patented design. Filter discs must always be screwed in between two FKM rubber seals. Without top manifold, PP outlet funnel or seals.

DURAN Group

Plate dia. mm	Porosity	PK	Cat. No.
24	1	1	9.052 941
24	2	1	9.052 942
24	3	1	9.052 943
24	4	1	9.052 944
50	1	1	9.052 951
50	2	1	9.052 952
50	3	1	9.052 953
50	4	1	9.052 954



### 2 Slotted sieve disc (perforated plate) DURAN®

Can be used in the 250ml capacity dismountable filter holder as a carrier for membrane and paper filters.

DURAN Group

Plate dia. mm	PK	Cat. No.
48	1	9.052 901



### 3 Filter funnels, Borosilicate glass 3.3

Borosilicate glass 3.3, with sintered disc filter as outlined below.

Capacity ml	Porosity	Dia. mm	Stem dia. mm	PK	Cat. No.
50	1	35	10	1	9.052 367
50	2	35	10	1	9.052 368
50	3	35	10	1	9.052 369
50	4	35	10	1	9.052 370
75	1	45	10	1	9.052 371
75	2	45	10	1	9.052 372
75	3	45	10	1	9.052 373
75	4	45	10	1	9.052 374
125	1	60	10	1	9.052 375
125	2	60	10	1	9.052 376
125	3	60	10	1	9.052 377
125	4	60	10	1	9.052 378
250	1	80	18	1	9.052 066
250	2	80	18	1	9.052 067
250	3	80	18	1	9.052 068
250	4	80	18	1	9.052 069
500	1	90	22	1	9.052 379
500	2	90	22	1	9.052 380
500	3	90	22	1	9.052 381
500	4	90	22	1	9.052 382
1000	1	120	22	1	9.052 383
1000	2	120	22	1	9.052 384
1000	3	120	22	1	9.052 385
1000	4	120	22	1	9.052 386
4000	1	175	30	1	9.052 387
4000	2	175	30	1	9.052 388
4000	3	175	30	1	9.052 389
4000	4	175	30	1	9.052 390





### 1 Filter funnels, glass DURAN®

Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

DURAN Group

Capacity ml	Porosity	Dia. mm	Stem dia. mm	Height mm	PK	Cat. No.
50	1	35	10	130	1	9.052 301
50	2	35	10	130	1	9.052 302
50	3	35	10	130	1	9.052 303
50	4	35	10	130	1	9.052 304
50	5	35	10	130	1	9.052 305
75	1	45	10	130	1	9.052 311
75	2	45	10	130	1	9.052 312
75	3	45	10	130	1	9.052 313
75	4	45	10	130	1	9.052 314
75	5	45	10	130	1	9.052 315
125	1	60	10	140	1	9.052 321
125	2	60	10	140	1	9.052 322
125	3	60	10	140	1	9.052 323
125	4	60	10	140	1	9.052 324
125	5	60	10	140	1	9.052 325
500	1	95	22	200	1	9.052 331
500	2	95	22	200	1	9.052 332
500	3	95	22	200	1	9.052 333
500	4	95	22	200	1	9.052 334
500	5	95	22	200	1	9.052 335
1000	1	120	22	320	1	9.052 341
1000	2	120	22	320	1	9.052 342
1000	3	120	22	320	1	9.052 343
1000	4	120	22	320	1	9.052 344
1000	5	120	22	320	1	9.052 345
4000	1	175	30	400	1	9.052 361
4000	2	175	30	400	1	9.052 362
4000	3	175	30	400	1	9.052 363
4000	4	175	30	400	1	9.052 364



### 2 Filter funnels, conical, borosilicate glass 3.3

Capacity ml	Porosity	Dia. mm	Int. dia. mm	Stem dia. mm	PK	Cat. No.
25	3	55	25	8	1	9.052 365
25	4	55	25	8	1	9.052 366



### 3 Filter funnels, glass DURAN®, conical

Conical. Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

DURAN Group

Capacity:	25mm
Diameter:	55mm
Plate diameter:	25mm
Stem diameter:	8mm
Height:	100mm

Type	Porosity	PK	Cat. No.
39D	3	1	9.052 453
39D	4	1	9.052 454



### 4 Slotted sieve filter funnels (Buchner funnels), DURAN®

Buchner pattern funnel with slotted sieve (perforated) filter plate. Glass Type I/neutral glass as per USP, EP and JP. Autoclavable.

DURAN Group

Capacity ml	Dia. mm	Height mm	Stem dia. mm	PK	Cat. No.
70	48	130	10	1	9.252 022
125	60	140	10	1	9.252 028
220	73	180	18	1	9.252 034
500	95	240	22	1	9.252 044
1000	120	280	22	1	9.252 054

### 1 Buchner funnels, porcelain

To DIN 12905.

Haldenwanger

For filter Ø	Capacity	PK	Cat. No.
mm	ml		
27*	10	1	9.252 027
45	50	1	9.252 045
50	75	1	9.252 055
70	135	1	9.252 070
90	290	1	9.252 090
110	580	1	9.252 110
125	795	1	9.252 125
150	1250	1	9.252 150
185	1900	1	9.252 185
240	4300	1	9.252 240
270	5800	1	9.252 270
320	10600	1	9.252 320

\* supplementary to DIN 12905



### 2 Filter funnels, PP, Buchner

PP. Two-piece construction. Top and bottom sections can be separated. Easy to clean.

Kartell

For filter Ø	Capacity	PK	Cat. No.
mm	ml		
42,5	40	1	9.252 330
55	70	1	9.252 331
70	180	1	9.252 332
80	285	1	9.252 333
90	390	1	9.252 334
110	810	1	9.252 335
160	2100	1	9.252 338
240	6000	1	9.252 339



### 3 Discs for filter funnels, Buchner, PE-HD

Useful interface layer between filter paper and perforated Buchner plate. Avoids clogging of filter holes.

Kartell

Dia. mm	PK	Cat. No.
45	1	9.252 340
55	1	9.252 341
70	1	9.252 342
80	1	9.252 343
90	1	9.252 344
110	1	9.252 345
160	1	9.252 348
240	1	9.252 349



### 4 Rubber sleeves, EPDM

For filter crucibles. Temperature resistant up to 150°C. Autoclavable.

DURAN Group

Dia. mm	PK	Cat. No.
26	1	9.052 114
33	1	9.052 121
41	1	9.052 126
49	1	9.052 131



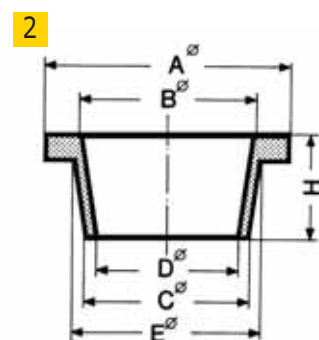


### 1 Protective collars, EPDM.

For filter flasks.

Special design centres the funnel and flask and provides stable support for funnels, filters and manifolds placed on them. A clean seal is made between the flask rim and container placed on it. Application of the vacuum provides a tight seal. Also provides all-round protection for glass filter flask rims, significantly reducing impact damage and extending working life.

Dia. mm	Height mm	For bottles ml	PK	Cat. No.
23	11	100	1	9.052 391
33	15	250, 500	1	9.052 392
44	25	1000	1	9.052 393
58	25	2000, 3000	1	9.052 394
68	25	5000, 10000	1	9.052 395



### 2 Filter rings, rubber

Natural rubber (NR). To hold filter funnels or crucibles.

LLG

Ø A mm	Ø B mm	Ø C mm	Ø D mm	Ø E mm	Height mm	PK	Cat. No.
41	25	24	18	30	20	1	9.052 449
48	35	32	28	36	20	1	9.052 450
56	40	42	35	44	20	1	9.052 451



### 3 Gaskets

Grey, filter gaskets made of natural rubber (NR). Conical, to fit filter funnels or crucibles into suction flasks.

Top dia. mm	Bottom dia. mm	Height mm	Wall thickness mm	PK	Cat. No.
21	12.0	18	2.5	1	9.052 412
27	17.0	20	3.0	1	9.052 417
33	21.0	24	3.0	1	9.052 423
41	27.5	27	4.0	1	9.052 427
53	33.0	34	5.0	1	9.052 432
68	48.0	35	5.5	1	9.052 436
78	58.0	35	6.0	1	9.052 439
89	66.0	40	6.5	1	9.052 443



### 4 Filter flasks, glass DURAN®

DURAN Group

Capacity ml	Dia. mm	Neck dia. mm	Height mm	PK	Cat. No.
3000	170	60	295	1	9.051 268
5000	185	70	360	1	9.051 273
10000	240	70	420	1	9.051 286
15000	255	75	500	1	9.051 288
20000	290	75	535	1	9.051 291

### Set of filter crucible cones, Guko

Comprises of 8 Gukos in sizes 21mm to 89mm external diameter.

Type	PK	Cat. No.
Guko set	1	9.052 400

### 1 Filter flasks, glass DURAN®

DIN 12476. ISO 6556. Erlenmeyer shape. Heavy wall, for vacuum use. With ground 17.5/26 socket for vacuum tubing with 15mm to 18mm external diameter. These filtering flasks fulfil the regulations of the "equipment and product safety regulations".

DURAN Group

Capacity	Dia.	Neck dia.	Height	PK	Cat. No.
ml	mm	mm	mm		
250	85	35	155	1	9.051 236
500	105	34	185	1	9.051 244
1000	135	45	230	1	9.051 254
2000	166	60	255	1	9.051 263



### Filter flasks, glass

**NEW!**

Borosilicate glass 3.3 with thick walls according to ISO 6556 and DIN 12476 standards. Polypropylene side arm has a screw thread connector for easy and safe fitting of the tubing.

Isolab

Capacity, 100 to 2000 ml: Erlenmeyer shape  
Capacity, 3000 to 20000 ml: Bottle shape

Capacity	Description	PK	Cat. No.
ml			
100	flask with glass side arm	1	4.008 437 <b>2</b>
250	flask with glass side arm	1	6.241 652
500	flask with glass side arm	1	6.241 291
1000	flask with glass side arm	1	6.239 008
2000	flask with glass side arm	1	4.008 438
100	flask with PP side arm	1	4.008 439 <b>3</b>
250	flask with PP side arm	1	6.237 706
500	flask with PP side arm	1	6.237 707
1000	flask with PP side arm	1	6.237 708
2000	flask with PP side arm	1	6.242 170



4.008 437



4.008 439

### 4 Filter flasks, glass DURAN®

DIN 12476. ISO 6556. With PBT tubing connection and silicone (VMQ) seal. Heavy wall for vacuum use. These filtering flasks fulfil the regulations of the "equipment and product safety regulations".

DURAN Group

Capacity, 100ml to 2000ml: Erlenmeyer shape  
Capacity, 3000 to 20000 ml: Bottle shape

Capacity	Dia.	Neck dia.	Height	PK	Cat. No.
ml	mm	mm	mm		
100	65	24	105	1	9.051 424
250	85	35	155	1	9.051 436
500	105	34	185	1	9.051 444
1000	135	45	230	1	9.051 454
2000	166	60	255	1	9.051 455
3000	170	60	295	1	9.051 456
5000	185	70	360	1	9.051 457
10000	240	70	420	1	9.051 458
15000	255	75	500	1	9.051 459
20000	290	75	535	1	9.051 460



### 5 Assembly set, KECK®

For attaching flexible vacuum tubing to filter flasks. Consists of straight PP tubing connection, PP tubulature made of silicone (VMQ) rubber seal. PP components can withstand temperatures up to 140°C for short periods without mechanical load.

DURAN Group

Type	PK	Cat. No.
Assembly set, Keck®	1	9.051 471



**1**


### 1 Replacement seal

Silicone rubber (VMQ). For PP Olive.

DURAN Group

Type	PK	Cat. No.
Replacement seal	1	9.051 474

**2**


### 2 Filter flask DURAN®

Witt-pattern. Complete with interchangeable, flat-ground jointed, tube lid with cone, and plastic flexible tubing connection on one side.

DURAN Group

DN	Height	Lid	PK	Cat. No.
mm				
100	160	29/32	1	9.051 519
150	200	29/32	1	9.051 531
100	160	45/40	1	9.051 619
150	200	45/40	1	9.051 631

**3**


### 3 Filtration microplates, UniFilter® 800

UniFilter® 800, well capacity: 800µl. Drip director type long.

GE Healthcare

Type	Capacity	Colour	Filter media	PK	Cat. No.
µl					
UniFilter 800	800	PS / transparent	GF/B	25	9.951 583
UniFilter 800	800	PS / transparent	GF/C	25	9.951 584
UniFilter 800	800	PS / transparent	GF/D	25	9.951 585
UniFilter 800	800	PS / transparent	GF/F	25	9.951 587
UniFilter 800	800	PS / transparent	CA 0.45 µm	25	9.951 588

**4**


### 4 Filtration microplates, UniFilter® 2000

UniFilter 2000, well capacity: 2000µl. Drip director type long.

GE Healthcare

Type	Capacity	Filter media	PK	Cat. No.
µl				
UniFilter 2000	2000	GF/B	25	9.951 589
UniFilter 2000	2000	GF/C	25	9.951 590
UniFilter 2000	2000	GF/C (hydrophobic)	25	9.951 591
UniFilter 2000	2000	GF/D	25	9.951 592
UniFilter 2000	2000	GF/F	25	9.951 596

Other versions available.

**5**


### 5 Pressure filtration equipment, MD 142/5, stainless steel

For membrane filters 142mm diameter, prefilters 134mm diameter. For In-line filtration/sterilisation of up to several litres of liquid. Pressure-resistant up to 10 bar (using PTFE O-ring up to 4 bar only).

GE Healthcare

Type	PK	Cat. No.
without sample cylinder	1	9.603 212
with 2200 ml sample cylinder	1	9.603 224



### 1 Pressure filter holder, stainless steel

For 47mm diameter membrane filters. With reservoir barrel allowing up to 200ml of liquid to be filtered by connection to a suitable direct pressure source. Can also be used for filtering larger volumes in conjunction with a 5L pressurising container. Complete with silicone O-rings and 10mm diameter tubing ferrules on the inlet and outlets. For sterile filtration of tissue cultures, ultrafiltration of buffer solutions, cell count solutions and for pressing soil samples.

Sartorius Stedim

Type	Capacity ml	Filter size mm	PK	Cat. No.
Pressure filter holder	200	Ø 47 mm	1	9.604 345



### 2 Pressure filtration units

Sartolab P 20. For sterile filtration of cell culture media. Ready-to-use, disposable filtration units. Surfactant-free, 0.2µm cellulose acetate membrane with minimal protein adsorption. With Luer lock inlet and filling bell on the outlet.

Sartorius Stedim

Sartolab P 20 plus. With additional, binding agent-free, glass-fibre pre-filter for media which are difficult to filter.

Type	PK	Cat. No.
Sartolab P 20	10	9.054 681
Sartolab P 20 plus	10	9.054 686



### 3 Filter units, Sartolab RF

**NEW!**

Sterile filter units with receiver for sterile filtration of aqueous solutions and media, particularly cell culture. Simple and safe to handle. The integral polyethersulfone (PES) membrane guarantees extremely good throughput times and low protein binding, making it ideal for filtering proteinaceous solutions. The receiver is supplied with a flexible vacuum tubing adapter and a lid.

Sartorius Stedim

Type	Capacity ml	Pore size µm	PK	Cat. No.
Sartolab RF 150	150	0.22	12	9.049 200
Sartolab RF 250	250	0.22	12	9.049 201
Sartolab RF 500	500	0.22	12	9.049 202
Sartolab RF 1000	1000	0.22	12	9.049 203



### 4 Bottle-top filters, Sartolab BT

**NEW!**

Sterile vacuum filters for screwing directly onto sterile bottles. Disposable units for sterile filtration of media and aqueous solutions. The special polyethersulphone (PES) membrane produces extremely good throughput times and low protein binding, making it ideal for cell culture applications. With GL45 screw connection for all standard bottles. Caution: Only use sterile bottles authorised for use in low pressure applications.

Sartorius Stedim

Type	Capacity ml	Pore size µm	PK	Cat. No.
Sartolab BT 150	150	0.22	48	9.049 204
Sartolab BT 500	500	0.22	12	9.049 205
Sartolab BT 1000	1000	0.22	12	9.049 206





### 1 Vacuum or pressure filtration apparatus, Typ 16510, PC

For vacuum or pressure filtration up to 2 bar.  
For ultra or sterile filtration.  
With collecting bottle 250 ml.  
For filter 47mm diameter filters.

Sartorius Stedim

Type	Capacity ml	Filter size mm	PK	Cat. No.
PC filtration apparatus	250	Ø 47mm	1	9.049 243



### 2 Filter holders, glass, Type 163

Two compact, glass vacuum filter holders for simple particle testing and clarification of solutions. With glass frit membrane filter support and anodised aluminium clamp.

Sartorius Stedim

Type	Capacity ml	For Filter size	PK	Cat. No.
glass frit	30	25 mm dia.	1	9.604 204
glass frit	250	47/50 mm dia.	1	9.604 307



### 3 Filter holders, Type 16309

For vacuum filtration of particles from solutions. Comprises 250ml, dismantable, top manifold with filter holder and clamp. For 47mm and 50mm diameter filters. Supplied complete with 1L capacity filter flask with ground joint to fit manifold and PP side-arm for safe connection of flexible vacuum tubing.

Sartorius Stedim

Type	Capacity ml	Filter size mm	PK	Cat. No.
All-glass unit	250	Ø 47 - 50mm	1	9.604 076

## Accessories for Sartorius pressure filtration equipment

Sartorius Stedim

Description	PK	Cat. No.
Coupling M12 x 1 with G <sup>3</sup> / <sub>8</sub> male thread	1	9.604 383
Diaphragm pump, pressurizing, G <sup>3</sup> / <sub>8</sub> male screwthread connection, for 220V, 50Hz supplies	1	9.604 389
Tripod for pressure filtration apparatus 9.604 345	1	9.604 394
Double-ended box spanner for tripod 9.604 394	1	9.604 395
Stainless steel forceps	1	9.604 061

Further designs available on request.

### 1 Vacuum filtration equipment, GV 025 series

- funnel volume 60ml
- for filter 25mm diameter

GE Healthcare

Type	Filter media	Connection	PK	Cat. No.
GV 025/0	glass frit	rubber stopper	1	9.603 250
GV 025/1	sieve	rubber stopper	1	9.603 251
GV 025/2	glass frit	TC*, EF* 250ml (NS 29)	1	9.603 252

\*TC = tubing connection  
\*\*EF = Erlenmeyer flask



### 2 Vacuum Filtration Equipment GV 050 Series

- Funnel Volume 250 ml
- to be used with Ø 47/50 mm membranes and Ø 40 mm pre-filter
- silicone cap and venting nozzle included in scope of supply
- GV 050A-Types equipped with rapid closure clamp

GE Healthcare

Type	Filter media	Connection	PK	Cat. No.
GV 050/0	glass frit	rubber stopper	1	9.603 500
GV 050/1	sieve	rubber stopper	1	9.603 501
GV 050/2	glass frit	TC*, EF** 1000 ml (NS 45)	1	9.603 502
GV 050/3	sieve	TC*, EF** 1000 ml (NS 45)	1	9.603 503

\*TC = tubing connection  
\*\*EF = Erlenmeyer flask



### 3 Vacuum filtration Equipment Grade MV 050/0

- Stainless steel construction, chemically resistant to most aqueous and organic solutions.
- funnel volume 50ml
- for filters with 47mm /50mm diameter and 40mm diameter prefilter
- Self sealing, ideal for quick, repeated filtrations

GE Healthcare

Type	PK	Cat. No.
MV 050A/0*	1	9.603 520
MV 050/0	1	9.603 510

\*With rapid closure clamp





### 1 2 Microbiological monitoring of water: MBS I system and membranes

**NEW!**

The MBS I filtration system is designed for laboratories that handle high numbers of samples for microbiological quality control. It consists of a membrane dispenser, a funnel dispenser, and a 2-place filter AS220 manifold.

GE Healthcare

AS220 Filtration Manifold and Filtration funnels AS220 is a two-place stainless-steel filtration manifold, which can be joined together (maximum of 3 manifolds). This simple manifold can be used with 47 mm or 50 mm filtration membranes.

AS220 Filtration Manifold and Filtration funnels deliver:- Waste reduction-because PP funnels can be autoclaved up to 20 times

- Time saving-No need to flame in between filtrations
- Easy handing
- Cost saving-20 PP funnels are enough for 1000 analyses
- Reduces cross-contamination

Description	PK	Cat. No.
2-place vacuum manifold AS 220	1	6.231 788
Automatic dispenser for funnels	1	6.231 860
Funnels 100 ml, PP, autoclavable	20	7.616 566
Funnels 100 ml, ABS, not autoclavable	20	9.603 290
Funnels 350 ml, PP, autoclavable	20	6.801 571
Membrane-Butler electric	1	6.234 183
Autoclaving bags	20	7.608 012
Mountig for two Membrane-Butler ES	1	6.234 184
Membran-Butler manual	1	6.225 967



### 3 4 5 Whatman Klari-Flex® Bottle-Top Filtration System

**NEW!**

GE Healthcare

Designed specifically to improve productivity, the Klari-Flex system includes a stable, low-profile pedestal base with a permanent vacuum hose connection. This feature eliminates a time-consuming and inconvenient step in your process connecting and disconnecting the vacuum to each filter unit. With Klari-Flex, connect the vacuum once to the base. Each time a new filtration unit is placed on the base, Drop-Connect Technology ensures that the vacuum connection is automatic. As options, the Klari-Flex system includes a cradle ring, so you can achieve the same permanent vacuum hose connection using a typical laboratory stand. Or simply use it with the adapter for conventional bottle top filtration. With Drop-Connect Technology, the filtration unit can be quickly and accurately placed into the base with just one hand. Removing the unit is just as easy. From the unique vacuum connection to the weighted pedestal base to the tip-resistant bottle, the ergonomic design makes the Klari-Flex system easy-to-use, maximises throughput and minimises the risk of spills and contamination.

- Improves productivity
- Easy to use
- Minimises risk of spills and contamination

Description	Pore size $\mu\text{m}$	Membrane	PK	Cat. No.
250 ml funnel and bottle, sterile	0,22	PES	12	9.603 650
500 ml funnel and bottle, sterile	0,22	PES	12	7.626 508
1000 ml funnel and bottle, sterile	0,22	PES	12	9.603 651
250 ml funnel and bottle, sterile	0,45	PES	12	9.603 652
500 ml funnel and bottle, sterile	0,45	PES	12	7.626 509
1000 ml funnel and bottle, sterile	0,45	PES	12	9.603 653
250 ml funnel, sterile	0,22	PES	12	9.603 654
500 ml funnel, sterile	0,22	PES	12	9.603 655
1000 ml funnel, sterile	0,22	PES	12	7.626 510
250 ml funnel, sterile	0,45	PES	12	9.603 656
500 ml funnel, sterile	0,45	PES	12	9.603 657
1000 ml funnel, sterile	0,45	PES	12	9.603 658
250 ml bottle, sterile			24	9.603 659
500 ml bottle, sterile			24	9.603 660
1000 ml bottle, sterile			24	9.603 661
Cradle ring			1	9.603 662
Pedestal stand			1	9.603 663

4



5



### Exhaust Device, borosilicate



Behr

- Filter mountings, 400 ml, with thread
- PP funnels with thread
- Slotted sieve plate with 2 gaskets
- Stainless steel rack
- Water jet pump

i.e. for the determination of the raw fiber content according to EN ISO 6865

Type	Description	PK	Cat. No.
FU 4	Filtration unit, 4 places	1	9.843 844
FU 6	Filtration unit, 6 places	1	9.843 845

### 1 Filter manifold systems, 3- and 6-place

For colony counting when using large number of samples. Available with either 100ml or 500ml funnels.

Sartorius Stedim

**Note:**

Stainless steel manifolds only (Combisart) without funnels, for use with suitable adapters, are also available for attachment to all Sartorius vacuum funnels.

Type	Dia.		Capacity	PK	Cat. No.
	mm	ml			
3-way stainless steel manifold	50	3 x 100	1	9.604 222	
6-way stainless steel manifold	50	6 x 100	1	9.604 223	
3-way stainless steel manifold	50	3 x 500	1	9.604 226	
6-way stainless steel manifold	50	6 x 500	1	9.604 224	



### 2 Stainless steel filter manifold system

Combisart® Multibranch System with modular structure: For microbiological analysis. Basic system without outlet for holding all dismountable Sartorius vacuum funnels either completely or by using appropriate adapters

Sartorius Stedim

Description	PK	Cat. No.
3-place s/s manifold with sterile venting	1	9.604 227
6-place s/s manifold with sterile venting	1	9.604 228
Funnel, 100 ml	1	9.604 210
Funnel, 500 ml	1	9.604 211
Lid, stainless steel for 100ml funnel	1	9.604 212
Lid, stainless steel for 500ml funnel	1	9.604 213
Silicone lid seal for 100ml funnel	1	9.604 214
Silicone lid seal for 500ml funnel	1	9.604 215
Base support, stainless steel for mounting a single funnel onto a manifold	1	9.604 216



### 3 Filter holders, vacuum, Type 162. Stainless steel

Specially designed for residue analysis. The stainless steel filter support produces homogeneous distribution of the residues on the membrane filter surface. Easy to use. For 47mm or 50mm diameter filters.

Sartorius Stedim

Type	PK	Cat. No.
Vacuum filter holder, 500ml	1	9.604 201
Vacuum filter holder, 100ml	1	9.604 202



## Filtration/Filtration apparatus



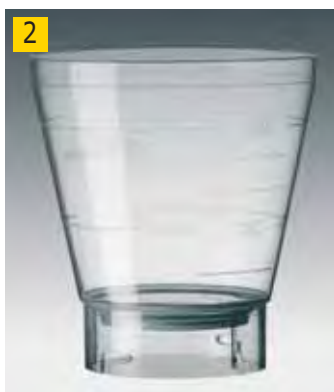
### 1 Biosart®100 monitors

Filtration unit for use with a Sartorius vacuum manifold or direct attachment to a special vacuum pump. Biosart® 100 Monitors have been specifically designed for the microbiological testing of pharmaceuticals, food, beverages, water and other liquids. These sterile disposable units with built-in membrane filter and cellulose pad are ready to use. After filtration, just remove the 100ml funnel to convert the Monitor into a petri dish. Culture media for wetting the pad are available in individually sterilised, convenient plastic ampoules. Biosart® 100 Monitors are ready to use filter units designed to fitted onto the receivers of a vacuum manifold. For use with Biosart® 100 culture media.

Sartorius Stedim

Type	Dia. mm	Pore size µm	Colour	PK	Cat. No.
K	47	0.45	White / Black	48	9.049 300
K	47	0.45	Grey / White	48	9.049 315
ACK Sterile, individually packed	47	0.20	White / Black	48	9.049 311
ACK Sterile, individually packed	47	0.45	White / Black	48	9.049 312
ACK Sterile, individually packed	47	0.45	Green / Dark green	48	9.049 313
ACK Sterile, individually packed	47	0.45	Grey / White	48	9.049 304
Adapter for BioSart	55	-	-	1	9.049 320

ACK= individually sterile packed. K= sterile.



### 2 Filter funnel, Biosart®250

For microbiological and analytical quality assurance in industry. 250ml sterile plastic funnels reduce process time in colony and particle analysis. For use with Sartorius membrane filters and Sartorius cardboard culture plates.

Sartorius Stedim

**Note:** BioSart 250 funnels can also be adapted to fit single filter holders or filtration manifolds.

Type	PK	Cat. No.
BioSart 250 disposable funnel, sterile	50	9.049 340
BioSart 250 disposable funnel, sterile, individually packed	50	9.049 341



### 3 Filter Unit Receivers MF75™ series Type 455, PS, sterile

**NEW!**

Easy-to-use ergonomic design. Can be used to store sterilised filtrate. Radiation-sterilised to save you time and minimize contamination. Also handy as presterilised, single-use storage containers. 1-1/2-turn threaded screw closure guarantees a leakproof seal and eliminates pH shift in receivers. Certified. Non pyrogenic, non cytotoxic. Sterile, graduated and leakproof.

Nalgene

Type	Capacity ml	PK	Cat. No.
455	150	1	7.048 731
455	250	1	7.048 732
455	500	1	7.048 733
455	1000	1	7.048 734



### 1 Filter units with Supor® machV PES Membrane, MF75™ Series, Type 565, sterile NEW!

Ideal for biological and pharmaceutical sterile filtration. PES membrane features low protein binding, low level of extractables and a high flow rate. Now available in three pore sizes: The best filter units with 0.20µm and 0.45µm pore size and new to the protection of valuable cell cultures from mycoplasma with 0.10µm pore size. Filter top and filtrate bottle are graduated. Vacuum tubing to be connected onto tubing adapter of side arm. Leakproof, sterile screw closure included for storage of sterile filtrate. Sterile, single packed. Certificate of Quality included in each full case. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability.

Nalgene



Type	Capacity ml	Pore size µm	Membrane dia. mm	PK	Cat. No.
565	150	0.10	50	1	9.046 022
565	250	0.10	50	1	9.046 024
565	500	0.10	75	1	9.046 023
565	150	0.20	50	1	6.302 336
565	250	0.20	50	1	6.228 218
565	500	0.20	75	1	6.227 381
565	500	0.20	90	1	6.225 298
565	1000	0.20	90	1	6.229 041
565	150	0.45	50	1	7.047 785
565	250	0.45	50	1	7.047 791
565	500	0.45	75	1	7.047 787
565	500	0.45	90	1	7.047 793
565	1000	0.45	90	1	7.047 789

### 2 Filter Unit with PES-Membrane, Low Profile, sterile NEW!

Polyethersulfone-membrane (PES) The ultimate cell and tissue culture media membrane. Nalgene  
 - Graduated  
 - Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability  
 - Ideal for sterilisation of biological and pharmaceutical sterile solutions  
 - Low protein binding, low extractables, no external wetting agents, fast flow



Capacity ml	Pore size µm	Membrane dia. mm	PK	Cat. No.
115	0.20	50	1	6.234 424
115	0.45	50	1	9.046 020

### 3 Bottle-Top-Filter MF75™ with Supor® machV PES-Membrane, Type 295, 296, sterile NEW!

Filters securely screw onto glass media bottles with 33mm or 45mm neck sizes. Allows direct filtration of liquid into sterile glass media bottles. Tight and secure thread connection for vacuum filtration, vacuum tubing to be connected onto tubing adapter of side-arm. Graduated. Sterile, single packed. Certificate of Quality included in each full case. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability

Nalgene



Type	Capacity ml	Pore size µm	Neck thread GL	Membrane dia. mm	PK	Cat. No.
296	150	0.45	33	50	1	7.048 393
295	500	0.45	33	75	1	7.048 389
296	150	0.45	45	50	1	7.048 395
295	500	0.45	45	75	1	7.048 391

### 4 Filter unit bodies, Type 300

Graduated reusable filtration unit bodies with upper manifolds and lower receivers made of unbreakable polysulphone (PSF). Nominal filtration surface 11cm². With membrane support plate. Without membrane. For filter membrane from 47mm to 50mm. Nalgene



Type	Manifold capacity ml	Receiver capacity ml	Dia. mm	Height mm	PK	Cat. No.
300	250	250	83	180	1	9.046 151
300	500	500	117	230	1	9.046 152
300	500	1000	114	293	1	9.046 153



### 1 Vacuum filtration devices bottle-top filters, Type DS0320, PSU

Reusable, PSU filter manifolds for fitting onto bottles with 33mm or 45mm screw neck diameters. Non-toxic. Robust body with removable membrane support plate. Suitable for pressure filtration up to 600mbar and vacuum filtration. With seal, cap and tubing adapter on lower half of the assembly. Autoclavable. Without membrane (47mm or 50mm diameter can be fitted).

Nalgene

Type	Capacity ml	Neck thread GL	PK	Cat. No.
DS0320	250	33	1	9.059 506
DS0320	500	33	1	9.059 508
DS0320	250	45	1	9.059 507
DS0320	500	45	1	9.059 509



### 2 Bottle Top Filters with Supor® machV PES-Membrane, MF75™ series, sterile, Type 595

**NEW!**

Filters securely screw onto glass media bottles with 33mm or 45mm neck sizes. Allows direct filtration of liquid into sterile glass media bottles.

Nalgene

Tight and secure thread connection for vacuum filtration, vacuum tubing to be connected onto tubing adapter of side-arm. Graduated. Certificate of quality included in each full case. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability.

Type	Capacity ml	Neck thread GL	Pore size µm	Membrane dia. mm	PK	Cat. No.
595	150	33	0.20	50	1	7.048 392
595	500	33	0.20	75	1	7.048 388
595	1000	33	0.20	90	1	7.048 396
595	150	45	0.20	50	12	6.224 312
595	500	45	0.20	75	1	7.048 390
595	1000	45	0.20	90	1	7.048 397



### 3 Filter units, disposable, SFCA-membrane

Single-use, disposable filter units for sterile filtration of media and other reagents, and for other highly sensitive cell culture lines. With polystyrene (PS) upper and lower chambers and surfactant-free, cellulose acetate membranes. Colour code: yellow collar. For cell culture. Gamma-irradiated sterile. Low protein binding, with high throughput rate for proteinaceous solutions and minimal extractables content. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability.

Nalgene

Capacity ml	Pore size µm	Membrane dia. mm	PK	Cat. No.
150	0.20	50	1	9.046 034
150	0.45	50	1	9.046 035
250	0.20	50	1	9.046 037
250	0.45	50	1	9.046 038
500	0.20	75	1	9.046 041
500	0.45	75	1	9.046 042
1000	0.20	75	1	9.046 044
1000	0.45	75	1	9.046 045
500	0.20	90	1	9.045 975
500	0.45	90	1	9.045 976
1000	0.20	90	1	9.045 971
1000	0.45	90	1	9.045 972





### 1 Filter units, disposable, cellulose nitrate membrane

White, cellulose nitrate membrane. Colour code: green. Highest throughput rate for water and aqueous solutions, low extractables content. Surfactant-free. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability. Nalgene

Capacity ml	Pore size µm	Membrane dia. mm	Grid	PK	Cat. No.
115	0.20	50	without	1	9.046 106
115	0.45	50	green	1	9.046 107
150	0.20	50	without	1	9.046 109
150	0.45	50	green	1	9.046 110
150	0.80	50	black	1	9.046 111
250	0.20	50	without	1	9.046 121
250	0.45	50	green	1	9.046 122
250	0.80	50	black	1	9.046 123
500	0.20	75	without	1	9.046 131
500	0.45	75	green	1	9.046 132
500	0.80	75	black	1	9.046 133
1000	0.20	75	without	1	9.046 141
1000	0.45	75	green	1	9.046 142
1000	0.80	75	black	1	9.046 143



### 2 Filter units, PS, disposable, Type 150, 153, 151, 154, 164, nylon membrane

Single-use, disposable filter units for sterile filtration of media and other reagents, and for other highly sensitive cell culture lines. With polystyrene (PS) upper and lower chambers and nylon membrane. Colour code: red. For cell culture. Gamma-irradiated sterile. Extremely low in extractable substances, no wetting agents. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability. Nalgene

Type	Capacity ml	Pore size µm	Membrane dia. mm	PK	Cat. No.
150	150	0.20	50	1	9.046 055
150	150	0.45	50	1	9.046 056
153	250	0.20	50	1	9.046 061
153	250	0.45	50	1	9.046 062
151	500	0.20	75	1	9.046 064
151	500	0.45	75	1	9.046 065
163	500	0.20	90	1	9.045 978
154	1000	0.20	75	1	9.046 067
154	1000	0.45	75	1	9.046 068
164	1000	0.20	90	1	9.045 979



### 3 Bottle-top filters, SFCA membrane, Nalgene®

Tissue culture filters for screw fitting onto bottles with 33mm or 45mm neck diameters. With surfactant-free, cellulose acetate membrane (SFCA) and polystyrene (PS) housing. Gamma-irradiated sterile. Pyrogen free. Non cytotoxic. Low-pressure filtration can be carried out directly into a suitable sterile bottle. Caution: Only use sterile bottles authorised for use in low pressure applications. Always wear protective equipment for low pressure procedures. The membrane is characterised by its low protein binding, good throughput rates and minimal clogging with negligible protein loss. Permanent, moulded graduations. Quick-disconnection tubing adaptor with cellulosic vent plug for tubing with an internal diameter of 6mm to 9mm. Lot number, catalogue number, membrane type, pore size and expiration date are printed on filter units, bottle tops and receivers for easy identification and lot traceability. Nalgene

Capacity ml	Neck thread GL	Pore size µm	Membrane dia. mm	PK	Cat. No.
150	33	0.20	50	1	9.045 951
150	33	0.45	50	1	9.045 952
150	45	0.20	50	1	9.045 953
150	45	0.45	50	1	9.045 954
500	33	0.20	75	1	9.045 956
500	33	0.45	75	1	9.045 957
500	45	0.20	75	1	9.045 958
500	45	0.45	75	1	9.045 959
1000	33	0.20	90	1	9.045 961
1000	45	0.20	90	1	9.045 963





### 1 Bottle-Top-Filter FastCap™ with PES-Membrane, sterile

**NEW!**

Large-Volume Bottle Top Filter, blue PS housing. FastCap™ Bottle Top Filters universal fit eliminates the need to screw them onto glass media bottles. Filters up to 5L. just place on bottle mouth, apply vacuum and start filtering. Fits bottle necks up to 53mm.

Nalgene

Pore size µm	Dia. mm	PK	Cat. No.
0.20	90	1	7.055 107



### 2 Conical Filter Unit with PES-Membrane, sterile

**NEW!**

Polystyrene housing, 0.2µm Supor® machV PES membrane. The optimal choice for small volume tissue culture work. Offers clean, fast filtration of 20ml to 50ml of media or buffers using the Pall Supor® machV PES membrane. This low protein binding unit is non-cytotoxic and non-pyrogenic. Comes assembled with 50ml conical tube and a separate closure. Includes 2 reusable stands in each case. Certified and graduated. Lot number, catalogue number, membrane type, pore size and expiration date are printed on it.

Nalgene

Capacity ml	Pore size µm	Dia. mm	PK	Cat. No.
50	0.20	50	1	9.046 021



**Cooling****698**

Refrigerators 698 + Chest, Upright freezers, Ice makers 700 + Cryogenic boxes, racks 705 + Insulated containers 717 + LN2 Technology 721

**Temperature regulators****728**

Thermostats, cryostats 728

**Heating****759**

Water baths 759 + Drying-/ Universal incubators 779 + Microwaves 785 + Vacuum drying ovens 786 + Incubators 788 + Cooling incubators 795 + CO2 Incubators 798 + Shaking Incubators 803 + Test incubators 806 + Ovens, Furnaces 813 + Hotplates 818 + Temperature controllers, thermostats 825 + Incubation hoods 831