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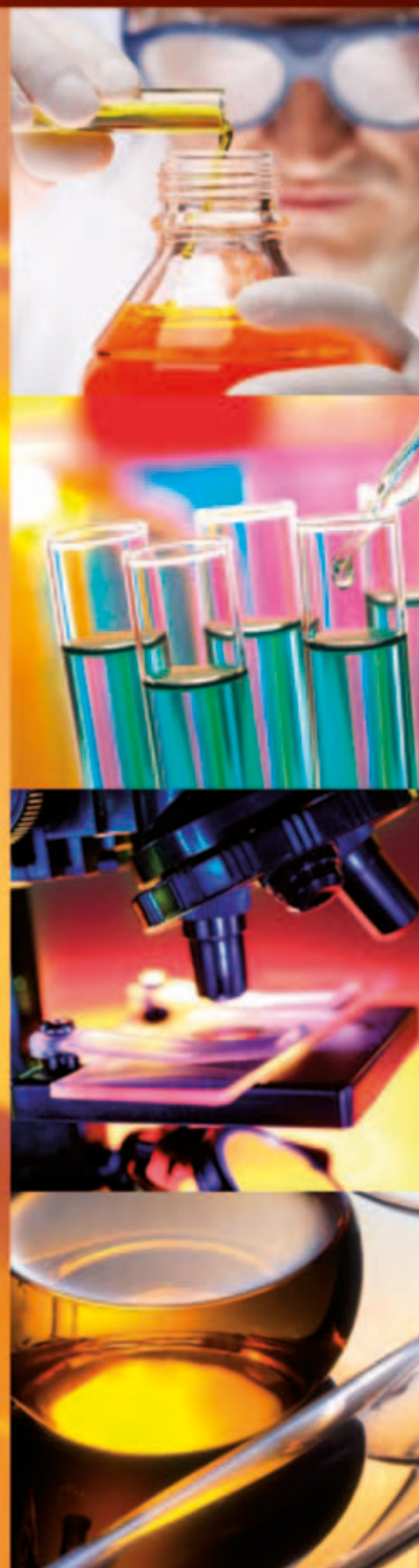
Labor-Technik

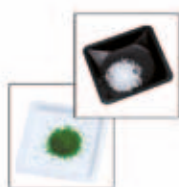
LABORATORY CATALOGUE

*Good quality.
Great value.*



Lab consumables
for your daily use





1. Lab consumables	4
Vessels 4 + Tools 12 + Heating 16 + Tubing 17 + General laboratory aids 18	
2. Occupational safety / Security	21
Eye protection 21 + Gloves 21 + Protective clothing 22 + Identification of hazards 23 + Waste disposal 24 + Furniture 24	
3. Analytical measurement and testing	25
pH meters, Accessories 25 + Balances, accessories 26 + Thermometers 27 + Timing 32 + Density determination 33	
4. Stirring, Shaking, Mixing	34
Magnetic stirrers / Hotplates 34	
5. Sample preparation	36
Grinding 36	
6. Distillation, Separation, Filtration	37
Distillation 37 + Filtration 41	
7. Heating and cooling technology	45
Cooling 45	
8. Liquid Handling	49
Volumetric apparatus 49 + Pipettes 51 + Titration 58	
9. Vacuum technology	60
Vacuum drying 60	
10. Optical instruments and Microscopes	61
Microscopes 61 + Photometers 63	
11. Cleaning and sterilisation	64
Disinfection 64 + Cleaning implements 65	
12. Life Sciences, Biotechnology	68
Cell culture 68 + PCR 69	

1. Lab consumables

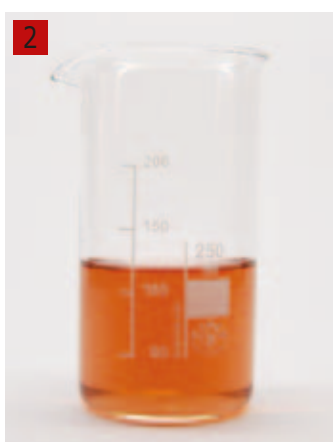
Vessels/Beakers-Measuring beakers



1 Beakers, Borosilicate 3.3 glass, low form

Borosilicate grade 3.3 glass. DIN 12 331. ISO 3819.

Capacity	Ext. diam.	Height	PK	Cat. No.
ml	mm	mm		
5	22	30	10	9.013 905
10	26	35	10	9.013 906
25	34	50	10	9.013 900
50	42	60	10	9.013 901
100	50	70	10	9.013 902
150	60	80	10	9.013 903
250	70	95	10	9.013 904
400	80	110	10	9.013 910
600	90	125	10	9.013 911
800	100	135	10	9.013 912
1000	105	145	10	9.013 913
2000	130	185	4	9.013 914
3000	150	210	4	9.013 915
5000	170	270	2	9.013 916



2 Beakers, Borosilicate 3.3 glass, tall form

Borosilicate grade 3.3 glass. DIN 12 331. ISO 3819.

Capacity	Ext. diam.	Height	PK	Cat. No.
ml	mm	mm		
25	30	55	10	9.013 924
50	38	70	10	9.013 925
100	48	80	10	9.013 920
150	54	95	10	9.013 921
250	60	120	10	9.013 922
400	70	130	10	9.013 923
600	80	150	10	9.013 930
800	90	175	10	9.013 931
1000	95	180	10	9.013 932
2000	120	240	6	9.013 933
3000	135	280	6	9.013 934



3 LLG-measuring beakers, PP

According to ISO 7056. Printed blue graduations.

Capacity	Grad.	Diam.	Height	PK	Cat. No.
ml	ml	mm	mm		
25	5	32	47	2	9.013 670
50	10	39	60	2	9.013 671
100	10	50	70	2	9.013 672
250	25	67	93	2	9.013 673
500	50	88	119	2	9.013 674
1000	50	109	147	2	9.013 675
2000	100	133	184	1	9.013 676



4 LLG-measuring jugs, PP

According to ISO 7056. Printed blue graduations. Stackable.

Capacity	Grad.	Diam.	Height	PK	Cat. No.
ml	ml	mm	mm		
250	5	75	115	2	9.013 680
500	10	100	137	2	9.013 681
1000	10	125	167	2	9.013 682
2000	20	148	217	1	9.013 683
3000	25	170	244	1	9.013 684

1 Erlenmeyer flasks, Borosilicate glass 3.3, narrow mouth

DIN ISO 1773. With graduations and beaded rim.

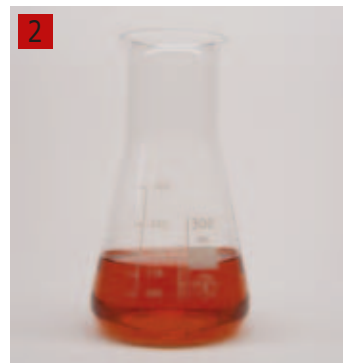
Capacity	Neck diam.	External flask Ø	Height	PK	Cat. No.
ml	mm	mm	mm		
25	22	42	70	10	9.141 079
50	22	51	85	10	9.141 080
100	22	64	105	10	9.141 081
200	34	79	131	10	9.141 085
250	34	85	140	10	9.141 082
300	34	87	156	10	9.141 086
500	34	105	175	10	9.141 083
1000	42	131	220	10	9.141 084
2000	50	166	280	6	9.141 087
3000	50	187	310	6	9.141 088
5000	50	220	365	2	9.141 089



2 Erlenmeyer flasks, Borosilicate glass 3.3, wide mouth

DIN ISO 24450. With graduations and beaded rim.

Capacity	Neck diam.	External flask Ø	Height	PK	Cat. No.
ml	mm	mm	mm		
25	32	42	70	10	9.141 186
50	34	51	85	10	9.141 180
100	34	64	105	10	9.141 181
200	50	79	131	10	9.141 187
250	50	85	135	10	9.141 182
300	50	87	156	10	9.141 183
500	50	105	170	10	9.141 184
1000	50	131	215	10	9.141 185
2000	72	153	280	6	9.141 188



3 Conical flasks, PP

Highly transparent, wide neck, with screw cap made of PP, NS-stoppers can also be used (not included). Food-safe. Printed blue graduations.

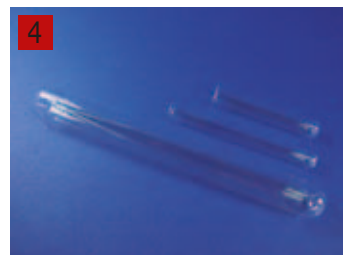
Capacity	Grad.	Neck thread	Stopper NS	PK	Cat. No.
ml	ml	GL			
50	10	40	34/35	1	9.141 381
100	20	40	34/35	1	9.141 382
250	50	52	45/40	1	9.141 383
500	100	52	45/40	1	9.141 384
1000	200	52	45/40	1	9.141 385



4 LLG-Test tubes Fiolax® glass

Round bottom test tubes made of high quality Fiolax® glass with beaded rim.

Ext. diam.	Length	Wall thickness	PK	Cat. No.
mm	mm	mm		
8	70	0.5	100	7.190 001
10	100	0.5	100	6.234 026
12	75	0.5	100	7.613 795
12	100	0.5	100	7.190 011
14	130	0.5	100	7.606 374
16	130	0.6	100	7.606 375
16	160	0.6	100	7.190 021
18	180	0.6	100	7.190 023
20	180	0.6	100	7.190 028



1. Lab consumables

Vessels/Test tubes-Test tube racks



1 LLG-Test tubes, AR® soda-lime glass

Diam. mm	Height mm	Description	PK	Cat. No.
8	70	with beaded rim	100	6.201 034
10	100	with beaded rim	100	6.801 073
12	100	with beaded rim	100	7.607 198
14	130	with beaded rim	100	6.800 620
16	130	with beaded rim	100	6.800 382
16	160	with beaded rim	100	7.600 405
20	180	with beaded rim	100	7.607 778
25	150	with beaded rim	50	6.800 621
30	200	with beaded rim	50	7.600 324
15	100	without rim	100	7.651 872
16	120	without rim	100	7.651 871
18	130	without rim	100	7.652 552
30	100	without rim	81	6.235 823



2 LLG-Stoppers for test tubes, PE

For tubes diam. mm	Colour	PK	Cat. No.
12 to 13	neutral	100	9.231 270
12 to 13	blue	100	9.231 271
12 to 13	yellow	100	9.231 272
12 to 13	red	100	9.231 273
12 to 13	green	100	9.231 274
15 to 16	neutral	100	9.231 275
15 to 16	blue	100	9.231 276
15 to 16	yellow	100	9.231 277
15 to 16	red	100	9.231 278
15 to 16	green	100	9.231 279



3 LLG-Cellulose stoppers

Cellulose, 100% chlorine-free bleached. For closing test tubes, culture flasks etc.

For int. diam. mm	PK	Cat. No.
7.5 to 8.5	4000	9.231 660
8.5 to 9.5	1000	9.231 661
9.5	2000	9.231 662
10.5 to 11.5	2000	9.231 663
9.5 to 11.5	1000	9.231 664
11.5 to 13.5	1000	9.231 665
11.5 to 13.0	1000	9.231 666
12.5 to 14.5	1000	9.231 667
13.0 to 14.5	1000	9.231 668
12.0 to 14.0	1000	9.231 669
13.5 to 15.5	500	9.231 670
17.5 to 18.5	500	9.231 671
20.5 to 22.0	400	9.231 672
19.0 to 22.5	500	9.231 673
27.0 to 32.5	1000	9.231 674
29.5 to 31.0	250	9.231 675
32.5 to 35.0	100	9.231 676
32.0 to 33.0	150	9.231 677
30.0 to 32.5	750	9.231 678
33.5 to 36.0	150	9.231 679
35.5 to 39.5	600	9.231 680
37.5 to 41.5	100	9.231 681
40.0 to 43.5	100	9.231 682
42.0 to 46.5	100	9.231 683
47.0 to 48.0	75	9.231 684



4 Test tube holders, wood

Wood with metal spring.

For neck diam. mm	PK	Cat. No.
Up to 20	1	9.193 992
Up to 30	1	9.193 993

1. Lab consumables

Vessels/Test tube racks-Containers

1 Microtube racks 4-Way, PP

Build as large a rack as you need by linking together multiple rack units. Racks feature a unique system of tabs and slots, which facilitate easy assembly and sturdy fit. Heavy-duty polypropylene racks can hold 4 x 50ml or 12 x 15ml conical tubes, 32 x 1.5ml or 32 x 0.5ml microtubes. Autoclavable. Dimensions (L x W x H): 175 x 95 x 51mm.

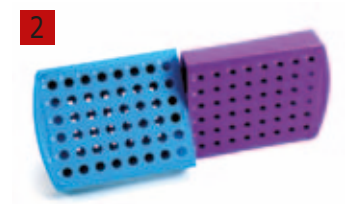
Colour	PK	Cat. No.
Natural	1	9.409 131
Blue	1	9.409 132
Green	1	9.409 133
Pink	1	9.409 134
Yellow	1	9.409 135
Orange	1	9.409 136
Blue, green, pink, yellow, orange	5	9.409 137



2 Tube Racks Rota-Rack® Duo

Works with PCR® tubes right next to centrifuge tubes. The 0.2ml tube wells oriented in standard 96-well format. Use with PCR® transfer trays. Rotate the rack to work either with 0.2ml tubes and 0.5ml tubes, with 0.2ml tubes and 1.5ml tubes or with 0.5ml tubes and 1.5ml tubes. Or turn a module and work with a total of 96 x 1.5ml tubes. Quickly identify tubes with imprinted alphanumeric system. Autoclavable. Dimensions (L x W x H): 296 x 118 x 34mm

Type	PK	Cat. No.
Tube Rack Rota-Rack® Duo	1	9.194 000



3 LLG-Microtube rack, stainless steel 18/10

This sloping, combination rack holds 48 x 0.2ml PCR tubes (suitable also for 8 and 12 strips), 30 x 0.5ml tubes and 12 x 1.5ml or 12 x 2.0ml tubes. Resistant against UV sterilisation, ideal for PCR workstations. Autoclavable and heat resistant (200°C). Dimensions (L x W): 220 x 95mm. Height: front 20mm, back 45mm.

Type	PK	Cat. No.
LLG-Microtube Rack	1	9.409 000



4 LLG-Round sample containers, PP

White with screwed on lid.

Capacity ml	Diam. mm	Height mm	PK	Cat. No.
30	57.90	16.95	10	9.402 310
75	57.85	45.00	10	9.402 313
310	80.50	79.20	10	9.402 318
600	118.50	64.80	10	9.402 321
1250	118.50	127.50	5	9.402 324



5 LLG-Sample containers with tamper-evident cap, PS and PP

White with tamper-evident cap. Multi-purpose containers e.g. for storage or transport of samples.

Capacity ml	Diam. mm	Height mm	Material container	Material Lid	PK	Cat. No.
40	36.40	51.50	PS	PE-LD	10	9.402 350
100	57.50	58.00	PP	PP	10	9.402 353
250	63.50	95.20	PS	PE-LD	10	9.402 356
1000	116.00	115.50	PP	PP	5	9.402 359



1. Lab consumables

Vessels/Containers-Wide mouth bottles



1 Jars with snap-on lid, PE-HD

Cylindrical jars with insert and cap. Suitable for powders and solid specimens due to large neck. Resistant to chemicals. Suitable for food. Temperature range: -50 to +80°C.

Capacity	Diam.	Height	Neck i. d.	PK	Cat. No.
ml	mm	mm	mm		
70	50	60	36	1	6.205 920
120	56	71	36	1	6.206 304
250	69	94	50	1	6.205 857
500	86	107	70	1	6.205 921
1000	111	128	85	1	6.205 922
1500	111	182	87	1	6.226 130
2000	111	235	87	1	6.223 901



2 Buckets with spout, PP

Transparent with spout. Graduated with good chemical resistance. Food-Safe.

Capacity L	Diam. mm	Height mm	PK	Cat. No.
12	310	300	1	9.040 022
15	310	370	1	9.040 025



3 Laboratory bottles, Borosilicate glass 3.3.

Borosilicate glass 3.3. DIN 168 - 1. EN ISO 4796-1.
With graduations, pouring ring, PP screw cap and ISO thread.

Capacity	Ext. diam. mm	Height mm	Neck thread GL	PK	Cat. No.
ml					
100	56	105	45	10	9.072 331
250	70	143	45	10	9.072 332
500	86	182	45	10	9.072 334
1000	101	230	45	10	9.072 335
2000	136	260	45	10	9.072 336
5000	186	355	45	1	9.072 337
10000	234	435	45	1	9.072 338
20000	288	505	45	1	6.802 824



4 LLG-Wide neck bottles with screw cap, PE-LD

Transparent, with cap.

Capacity	Diam.	Height	Thread external diam. mm	PK	Cat. No.
ml	mm	mm	mm		
50	39.0	77.0	32	50	9.073 510
100	47.0	94.0	32	20	9.073 511
250	63.0	119.0	40	10	9.073 512
500	78.0	152.0	50	10	9.073 513
1000	96.0	206.0	65	4	9.073 514
1500	109.0	226.0	65	4	9.073 515
2000	120.0	247.0	65	1	9.073 516



1. Lab consumables

Vessels/Wide mouth bottles-Spray, dropping bottles

1 Graduated wide mouth bottles, PE

Polyethylene (body) and Polypropylene (cap).
Will withstand considerable pressure before rupturing.
Secured by tagging points on bottle and cap.
Confidential notes can be placed in the space between insert sealing plug and cap.



Capacity	Grad.	Ext. diam.	Int. diam.	Height	PK	Cat. No.
ml	ml	mm	mm	mm		
50	10	40	24.00	77	1	9.072 950
100	20	48	24.00	89	1	9.072 951
250	25	61	34.50	126	1	9.072 952
500	50	75	34.50	158	1	9.072 953
1000	100	93	45.00	200	1	9.072 954
2000	100	115	45.00	247	1	9.072 955

2 Square bottles, wide mouth

Bottles, PE with PP cap, graduated. Space saving bottles, ideal for long term storage of samples. Approximate graduations allow reproducible filling without the use of cylinders/beakers. Easy grip caps can be wired down for security. Head space between cap and insert plug can be used for confidential notes.



Capacity	Grad.	Width	Length	Height	Tubing i.d.	PK	Cat. No.
ml	ml	mm	mm	mm	mm		
50	10	38	38	70	24.0	1	9.072 944
100	20	42	48	90	34.5	1	9.072 945
250	50	57	59	110	34.5	1	9.072 946
500	100	70	80	138	45.0	1	9.072 947
1000	100	80	103	176	58.0	1	9.072 948
2000	100	100	134	210	58.0	1	9.072 949

3 LLG-Narrow-neck bottles with cap, PE-LD

Transparent with cap.

Capacity	Diam.	Height	Thread external diam.	PK	Cat. No.
ml	mm	mm	mm		
50	37.0	78.0	18	50	9.073 500
100	47.0	105.0	18	20	9.073 501
250	63.0	119.0	25	10	9.073 502
500	78.0	152.0	25	10	9.073 503
1000	96.0	206.0	28	4	9.073 504
2000	120.0	264.0	28	1	9.073 505



4 LLG - Wash bottles - narrow neck, PE

Easy to squeeze, semirigid, translucent and excellent clarity. The stream of the liquid can be easily controlled by hand pressure. Dispensing tip provides extra fine stream - tip can be cut back in order to increase the flow rate, if required.

Capacity	PK	Cat. No.
ml		
100	1	9.223 500
250	1	9.223 501
500	1	9.223 502
1000	1	9.223 503



1. Lab consumables

Vessels/Funnels



1 LLG-Funnel, borosilicate glass

All funnel types have short stems and 60 degree bowl angle in order to precisely fit the relevant size filter papers.

Funnel diam. mm	PK	Cat. No.
40	1	9.251 200
60	1	9.251 201
80	1	9.251 202
100	1	9.251 203
120	1	9.251 204
150	1	9.251 205



2 LLG-Funnels, PP

- clear, virgin polypropylene.
- polypropylene funnels are autoclavable at 121°C and 1.1 bar for 30 minutes.
- external ribs prevent airlock and back pressure.

Funnel diam. mm	Shaft diam. mm	Stem length mm	PK	Cat. No.
40	6.0	40	10	9.251 185
60	8.0	60	10	9.251 186
80	8.0	80	10	9.251 187
100	10.0	100	10	9.251 188
120	16.0	120	10	9.251 189
150	16.0	150	10	9.251 190



3 LLG-Funnels with internal rib, PP

- clear, virgin polypropylene.
- polypropylene funnels are autoclavable at 121°C and 1.1 bar for 30 minutes.
- external ribs prevent airlock and back pressure.
- with internal helicoidal rib which prevents filter papers from sticking and increases filtration speed.

Funnel diam. mm	Shaft diam. mm	Stem length mm	PK	Cat. No.
40	6.0	40	10	9.251 191
60	8.0	60	10	9.251 192
80	8.0	80	10	9.251 193
100	10.0	100	10	9.251 194
120	16.0	120	10	9.251 195
150	16.0	150	10	9.251 196



4 LLG-Funnel holders, stainless steel, with or without boss head

These funnel holders are suitable to hold all types of funnels with a diameter up to 150mm. They can also accommodate separating funnels (up to 1000ml). With or without boss head.

Diam. mm	Description	PK	Cat. No.
40	without boss head	1	9.251 550
60	without boss head	1	9.251 551
80	without boss head	1	9.251 552
100	without boss head	1	9.251 553
60	with boss head	1	9.251 555
80	with boss head	1	9.251 556
100	with boss head	1	9.251 557

1 LLG-Funnel holder, PP

Manufactured from best quality polypropylene. Suitable to hold all types of laboratory funnels with diameters up to 150mm. Two tapered wedges are provided to ensure firm grip on funnels having diameters of 10-13mm.

Description	PK	Cat. No.
LLG-Funnel holder	1	9.251 558



2 Powder funnels, soda-lime glass

With short stem.

Diam. mm	NS	Stem diam. mm	PK	Cat. No.
65	14/23	13	1	4.008 433
80	19/26	17	1	4.008 434
100	24/29	22	1	4.008 435
120	29/32	26	1	4.008 436



3 LLG evaporating dish, porcelain, semideep

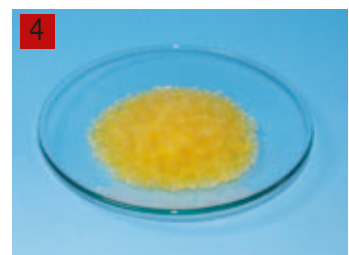
Capacity ml	Diam. mm	Height mm	PK	Cat. No.
41	72	26	1	9.000 150
62	83	27	1	9.000 151
110	96	30	1	9.000 152
240	127	42	1	9.000 153
420	154	50	1	6.232 525
558	170	55	1	9.000 154



4 Watch glasses, Soda-lime glass

Hydrolytical class 3. To DIN 12341. Ground edges.

Diam. mm	PK	Cat. No.
40	1	9.263 004
50	1	9.263 005
60	1	9.263 006
70	1	9.263 007
80	1	9.263 008
90	1	9.263 009
100	1	9.263 010
110	1	9.263 011
120	1	9.263 013
125	1	9.263 012
150	1	9.263 015
200	1	9.263 020
250	1	9.263 025



5 Watch glasses, Borosilicate glass 3.3

DIN 12341. Flame-polished edges. Autoclavable.

Diam. mm	PK	Cat. No.
50	10	9.263 470
60	10	9.263 471
70	10	9.263 472
80	10	9.263 473
100	10	9.263 474
125	10	9.263 475
150	10	9.263 476
200	10	9.263 477



1. Lab consumables

Vessels/Crucibles-Tools/Spoons, Spatulas



1 LLG-Crucibles, porcelain, low/medium/tall, DIN 12904

To DIN 12904. Glazed.

Capacity	Ext. diam.	Height	Form	PK	Cat. No.
ml	mm	mm			
5	30	19	Low form	1	9.250 900
10	35	22	Low form	1	9.250 901
17	40	25	Low form	1	9.250 902
21	45	28	Low form	1	9.250 903
34	50	32	Low form	1	9.250 904
63	60	38	Low form	1	9.250 905
91	70	44	Low form	1	9.250 906
12	35	28	Medium form	1	9.250 910
20	40	32	Medium form	1	9.250 911
30	45	36	Medium form	1	9.250 912
45	50	40	Medium form	1	9.250 913
80	60	48	Medium form	1	9.250 914
120	70	56	Medium form	1	9.250 915
15	30	38	Tall form	1	9.250 920
26	35	44	Tall form	1	9.250 921
35	40	50	Tall form	1	9.250 922
50	45	56	Tall form	1	9.250 923
72	50	62	Tall form	1	9.250 924
130	60	75	Tall form	1	9.250 925



2 LLG-Porcelain lid for crucible, DIN 12904

To DIN 12904.

Lid diam.	Crucible diam.	PK	Cat. No.
mm	mm		
34	30	1	9.250 930
39	35	1	9.250 931
44	40	1	9.250 932
49	45	1	9.250 933
54	50	1	9.250 934
64	60	1	9.250 935
74	70	1	9.250 936



3 LLG-Incinerating dishes, porcelain, DIN 12903

Porcelain, flat form with spout. To DIN 12903.

Capacity	Ext. diam.	Height	PK	Cat. No.
ml	mm	mm		
20	50	10	1	9.115 301
20	60	14	1	9.115 302
55	80	20	1	9.115 303
110	100	25	1	6.231 540
250	130	30	1	9.115 304



4 Sample spoon, PP

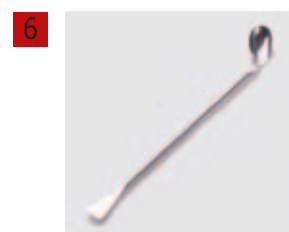
White PP. Length 180mm. Autoclavable at 121°C.

Capacity	Width	PK	Cat. No.
ml	mm		
1.23	20	1	9.150 643
2.46	25	1	9.150 644
4.93	30	1	9.150 645
14.79	39	1	9.150 646



5 Reagent spoons, 18/10 steel

Length	Diam.	PK	Cat. No.
mm	mm		
204.25	21.52	1	4.008 513



6 Multi-purpose spoon, 18/10 steel

Length	For	Spoon L x W	PK	Cat. No.
mm		mm		
150	Right handed user	15 x 35	1	9.150 800
180	Right handed user	15 x 35	1	9.150 801
210	Right handed user	15 x 35	1	9.150 802

1 Spatulas, round grooved, 18/10 steel

Polished, round grooved.

Length mm	PK	Cat. No.
150	1	4.008 448
180	1	4.008 449
210	1	4.008 450

1



2 Spoon spatulas, deep form

18/10 steel. Deep form.

Length mm	PK	Cat. No.
120	1	4.008 445
150	1	9.150 810
180	1	9.150 811
210	1	9.150 812
250	1	4.008 446
300	1	4.008 447

2



3 Micro spoon spatulas, stainless steel 18/10

Excellent grade polished stainless steel with one end having a flat spatula and the other end having a micro spoon.

Length mm	Spoon L x W mm	PK	Cat. No.
150	9 x 5	1	9.150 820
180	9 x 5	1	4.008 451

3



4 5 Double ended spatulas, 18/10 steel

18/10 steel. Narrow form.

Length mm	Type	PK	Cat. No.
130	straight	1	4.008 454
150	straight	1	4.008 455
185	straight	1	4.008 456
210	straight	1	4.008 457
250	straight	1	4.008 458
300	straight	1	4.008 459
185	curved	1	4.008 460
250	curved	1	4.008 461

4



5



6 Double ended spatulas chattaway, 18/10 steel

Polished stainless steel with one end flat and the other with a bent flat end.

Length mm	Spatula width mm	PK	Cat. No.
100	9	1	4.008 452
130	9	1	4.008 453
150	9	1	9.150 815
180	9	1	9.150 816
210	9	1	9.150 817

6



7 Palette knives, stainless steel

Stainless steel. With wooden handle. Flexible, long blade as outlined below.

Length mm	Blade length mm	Blade width mm	PK	Cat. No.
190	100	18	1	9.220 610
230	130	20	1	9.220 613
250	150	22	1	9.220 615

7



1. Lab consumables

Tools/Stirring rods-Knives, Scissors



1 Stirring rods, glass

Glass. With flame-polished ends.

Length mm	Ext. diam. mm	PK	Cat. No.
200	3	1	9.197 413
150	4	1	9.197 415
200	4	1	9.197 416
150	5	1	9.197 419
200	5	1	9.197 420
150	6	1	9.197 422
200	6	1	9.197 423
250	6	1	9.197 425
300	7	1	9.197 430
300	8	1	9.197 432
300	9	1	9.197 434



2 LLG-Multi-purpose tool

Blue anodised housing with stainless steel screws. Specifications: Needlenose Pliers, Wire Cutters, Wire Stripper, Knife, Saw Knife, Saw, Screwdriver, Crosshead Screwdriver, Bottle/Can Opener, File. Supplied completely with Nylon Belt Pouch. Dimensions: 100 x 45 x 20mm

Type	Weight g	PK	Cat. No.
LLG-Multi-purpose tool	230	1	9.160 000



3 Scissors dissecting, stainless steel 410

Excellent grade polished stainless steel with fine sharps points and close shanks.

Available as 2 types:

- straight body form
- curved body form

Type	Length mm	PK	Cat. No.
straight body form	130	1	6.236 264
curved body form	130	1	9.204 222



4 Scissors general purpose, stainless steel 410

Excellent grade polished stainless steel with straight form and close shanks.

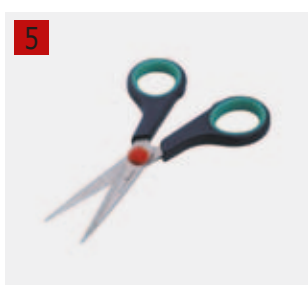
Available as 3 types:

- sharp/sharp points
- blunt/blunt points
- sharp/blunt points

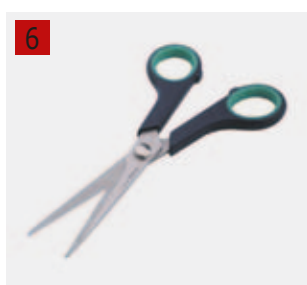
Type	Length mm	PK	Cat. No.
sharp - sharp	130	1	6.237 703
sharp - sharp	160	1	9.204 231
blunt - sharp	130	1	9.204 232
blunt - sharp	160	1	9.204 233
blunt - blunt	130	1	9.204 234
blunt - blunt	160	1	9.204 235

Scissors, stainless steel 2Cr13

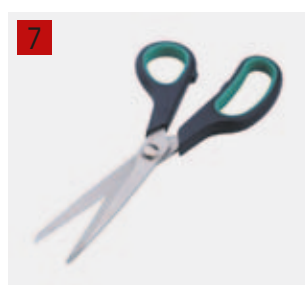
Description	Length mm	PK	Cat. No.
Utility scissors	130	1	4.008 515
Utility scissors	160	1	4.008 516
Utility scissors	200	1	4.008 517



4.008 515



4.008 516



4.008 517

1 LLG-Torch

Sturdy torch with 12 energy saving LED lights for ultra-bright light.
Made from metal with practical hand strap incl. 3 AAA batteries.

Dimensions (Diam. x L): 30 x 120mm

Type	PK	Cat. No.
LLG-Torch	1	9.961 000



2 LLG-Cover glass forceps, self-locking, stainless steel 4301

Length mm	Form	PK	Cat. No.
105	straight	1	9.160 380
105	curved	1	9.160 381



3 LLG-Cover glass forceps, Type Kühne, stainless steel 4301

Length mm	Form	PK	Cat. No.
115	curved	1	9.160 386
130	curved	1	9.160 387
145	curved	1	9.160 388
115	straight	1	9.160 391
130	straight	1	9.160 392
145	straight	1	9.160 393



4 Forceps, 18/10 steel

Sprung flutes.

Length mm	Form	PK	Cat. No.
105	blunt-straight	1	4.008 471
115	blunt-straight	1	4.008 472
130	blunt-straight	1	4.008 473
160	blunt-straight	1	4.008 474
200	blunt-straight	1	4.008 475
250	blunt-straight	1	4.008 476
300	blunt-straight	1	4.008 477
115	blunt-straight, with tooth	1	4.008 478
130	blunt-straight, with tooth	1	4.008 479
145	blunt-straight, with tooth	1	4.008 480
160	blunt-straight, with tooth	1	4.008 481



5 Forceps dissecting, stainless steel 420

Manufactured from excellent grade polished stainless steel with fine sharp points and sprung flutes.

Available as 2 types:

- straight body form
- curved body form

Length mm	Form	PK	Cat. No.
105	sharp - straight	1	4.008 482
115	sharp - straight	1	9.171 121
130	sharp - straight	1	9.171 122
150	sharp - straight	1	9.171 123
160	sharp - straight	1	4.008 483
200	sharp - straight	1	4.008 484
105	sharp - curved	1	4.008 485
115	sharp - curved	1	9.171 124
130	sharp - curved	1	6.236 683



6 Scoops, 18/10 steel

Length mm	Diam. mm	PK	Cat. No.
198.20	28.52	1	4.008 514



1. Lab consumables

Heating/Burners, Accessories



1 Tubing for gas burners

In accordance with DIN 30664 Section 1. Without reinforcement or casing. For connection to laboratory gas fittings in accordance with DIN 3537 Section 6 and gas burners for laboratories in accordance with DIN 30665 Section 1. For all three gas groups in accordance with the DVGW work paper G 260 and with pressures up to 100mbar. DIN-DVGW reg.no. NG-4607AU2362. Supplied per metre.

Int. diam. mm	Wall thickness mm	PK	Cat. No.
10	2.00	1	9.018 970



2 Beaker tongs

Beaker tong of 300mm length is made out of stainless steel. Insulated jaws are used to hold all types of beakers.

Length mm	For	PK	Cat. No.
300	beakers volume up to 1000ml	1	6.237 287



3 Flask tongs

Stainless steel flask tong - 300mm length with insulated jaws, used to hold all types of flasks.

Length mm	For	PK	Cat. No.
300	flasks volume up to 2000ml	1	4.008 397



4 Crucible tongs

18/10 steel. With bow and flutes.

Length mm	PK	Cat. No.
300	1	4.008 441



5 Dish tong

18/10 steel

Length mm	PK	Cat. No.
300	1	4.008 440



6 Three-footed stands

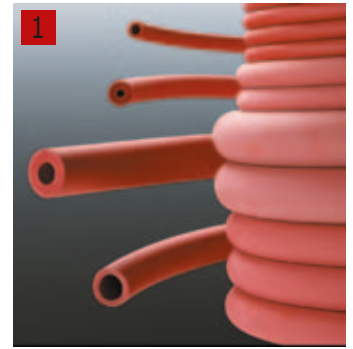
Chrome plated steel. Tripods are meant to be used in conjunction with wire gauze, triangles or a sand bath.

Diam. mm	Description	PK	Cat. No.
150	total height 200mm	1	6.242 704
150	adjustable height min 200mm/ max 300mm	1	4.008 512

1 Tubing

Red. Rubber (NR). Supplied per metre or in standard coils of 25m.

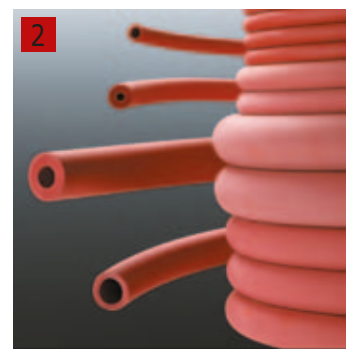
Int. diam. mm	Wall thickness mm	PK	Cat. No.
2	1.00	1	9.205 157
3	1.00	1	9.205 158
3	1.50	1	9.205 159
4	1.00	1	9.205 160
4	1.50	1	9.205 166
5	1.50	1	9.205 170
5	2.00	1	9.205 171
6	1.50	1	9.205 173
6	2.00	1	9.205 174
7	1.50	1	9.205 179
7	2.00	1	9.205 180
8	2.00	1	9.205 184
9	2.00	1	9.205 187
10	2.00	1	9.205 192
12	2.50	1	9.205 195
18	3.00	1	9.205 200



2 Vacuum tubing

Red. Rubber (NR). Supplied per metre or standard coils of 25m.

Int. diam. mm	Wall thickness mm	PK	Cat. No.
4	4.00	1	9.205 804
5	5.00	1	9.205 805
6	5.00	1	9.205 806
7	5.00	1	9.205 807
8	5.00	1	9.205 808
10	5.00	1	9.205 809



3 Keck tubing clamps KT

Thermoplastic polyester (PBT). Continuous control of flow rate in tubing with just one finger.

For external tube diam. mm	Colour	PK	Cat. No.
4.5	red	1	9.205 904
6.0	yellow	1	9.205 906
10.0	blue	1	9.205 910
14.0	red	1	9.205 914



4 Tubing clamp, Acetal

Adjustable in 15 positions.
Resistant to deformation and corrosion.
Suitable for tubing with external diameters of 3.2mm to 11mm.

Type	PK	Cat. No.
Tubing clamp	12	9.205 918



5 Tubing clamp, Acetal

Suitable for tubing with external diameters up to 0.82mm.

Type	PK	Cat. No.
Tubing clamp	12	6.200 838



6 Curved tubing clamps

Wilo. SK range. Steel. Large, plastic knurled nut with embedded brass screwthread insert which closes a metal bracket onto the curved tubing stirrup. Clamping range 10mm to 30mm. Temperature resistant up to 150°C.

Clamping range mm	Material	PK	Cat. No.
10	Knurled nut Aluminium	1	9.180 210
15	Knurled nut Moulded plastic	1	9.180 215
20	Knurled nut Moulded plastic	1	9.180 220
30	Knurled nut Moulded plastic	1	9.180 230



1. Lab consumables

General laboratory aids/Stands, Fittings



1 Laboratory jacks

Anodised aluminium. Blue, to DIN 12897.
With control knob.
Ratchet must be ordered separately - Cat.No. 9.118 921.

Width mm	Length mm	Min. height mm	Max. height mm	Max. dyn. kg	Max. stat. kg	PK	Cat. No.
160	130	60	275	7	30	1	9.118 976
200	200	60	275	7	30	1	9.118 977



2 Support rods galvanized steel

Galvanised steel. To DIN 12893. External diameter 12mm.
With M10 thread.

Type	Length mm	PK	Cat. No.
With thread	600	1	4.008 490
With thread	750	1	6.242 703
With thread	1000	1	4.008 491



3 Support rods 18/10 stainless steel

18/10 stainless steel. To DIN 12893. 12mm external diameter.

Thread	Length mm	PK	Cat. No.
M 10	600	1	4.008 492
M 10	750	1	4.008 493
M 10	1000	1	4.008 494



4 Tripod retort stand bases 18/10 stainless steel

Highly stable laboratory stand due to the steel tripod base which is stove enamel coated. With an M10 threaded hole in the middle of one short side. Rubber support feet prevents the stand from sliding. Laboratory stands are supplied without support rod. Please select the suitable rod from "support rods".

Thickness mm	Foot length mm	PK	Cat. No.
8	115	1	4.008 488
8	150	1	4.008 489



5 Rectangular retort stand bases 18/10 stainless steel

Highly stable laboratory stand due to the steel rectangular base which is stove enamel coated. With an M10 threaded hole in the middle of one short side. Rubber support feet prevents the stand from sliding. Laboratory stands are supplied without support rod. Please select the suitable rod from "support rods".

Width mm	Length mm	PK	Cat. No.
130	210	1	6.242 701
150	300	1	4.008 486
200	315	1	4.008 487



6 Bosshead, standard

Chrome plated cast alloy with smoothly opening distance of 0 - 15mm.
Available as 2 types:
- with fix stem that holds the objects on fixed position.
- with swivel mechanism which enables the object to freely swivel 360° and lockable at any desired angle.

Jaw opening mm	PK	Cat. No.
solid stem bosshead	1	6.238 711
swivel bosshead	1	6.239 009

1 Cross bosshead

Chrome plated cast steel. Suitable for frame works and fixing perpendiculars. Can be moved vertically and horizontally along the rods.

Description	PK	Cat. No.
suitable for rods 12mm	1	9.224 278



Clamp, 2 prongs

Chrome plated cast steel with two PVC coated prongs for gently holding the objects. Two separately adjustable clamps enable perfect control of holding pressure and precise positioning of the objects. Clamps can be opened and closed smoothly with a grip width of 0-50mm.

Available as 2 types:

- with solid stem of 12mm rod diameter, the holding angle and distance from the support rod can be adjusted by a separate bosshead.
- with swivel mechanism which enables the object to freely swivel 360° and lockable at any angle. Complete with a integral bosshead, usable for rods maximum diameter of 21mm.

Description	Jaw opening mm	PK	Cat. No.
solid stem clamp	0 to 50	1	6.237 648
swivel clamp	0 to 50	1	9.224 401



6.237 648



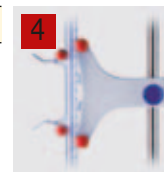
9.224 401

Burette clamp

- Metal burette clamps are made out of steel and can hold one burette at a time. Graduations and meniscus line of the burette are clearly visible. They can be used on support rods of 8-14mm diameter.

- Polypropylene burette clamp can hold one burette at a time. Graduations and meniscus line of the burette are clearly visible. They can be used on support rods of 10-12mm diameter.

Description	PK	Cat. No.
Burette clamp, metal	1	4.008 313
Burette clamp, PP	1	6.240 474



4.008 313



6.240 474

6 Aluminium foil

One side with a polished finish and the other side with a matt finish. Suitable for a wide range of laboratory applications, sealing, wrapping and forming temporary containers.

Length m	Width mm	Thickness mm	Description	PK	Cat. No.
20	300	0.013	Short roll	1	9.106 013
10	450	0.015	Short roll	1	9.106 015
150	450	0.015	Dispenser box	1	9.106 102
100	300	0.013	Dispenser box	1	9.106 103
150	450	0.015	Refilling roll	1	9.106 104
100	500	0.030	Dispenser box	1	9.106 105
10	300	0.015	Short roll	1	9.106 106
10	300	0.030	Short roll	1	9.106 107
200	500	0.050	Roll	1	9.106 205



7 Round aluminium discs

Interleaved with tissue paper. Foil thickness 0.03mm.

Diam. mm	PK	Cat. No.
80	1000	9.106 208
100	1000	9.106 210
120	1000	9.106 212
130	1000	9.106 213
150	1000	9.106 215



1. Lab consumables

General laboratory aids/Foils



1 2 LLG-Surface protector DescProtect

DescProtect is a durable paper which quickly absorbs liquid spills. The PE-coated base layer stops liquids reaching the work surface.

- stays flat, does not ripple or curl to de-stabilise vessels
- white surface can be written on using pens or pencils
- rapid absorption of liquid spills
- excellent fluid protection
- no contamination of work surfaces or laboratory cabinets
- suitable for school laboratories, wet chemistry, industry

Type	Size	PK	Cat. No.
Sheets	460mm x 570mm	50	9.160 270
Spool	400mm x 50m	1	9.160 271

3 SAROGOLD®

Extra-strong foil. PVC-based. Good barrier properties protects the user against contact with dangerous substances (e.g. ethidium bromide or contaminated isotopes) from the sealed material and it is therefore suitable for covering sequencing gels in Electrophoresis applications.

Ideal characteristics for use:

- does not stick, easy to unravel
- with cutter
- non-flammable
- self-extinguishing
- microwaveable

Specifications

Film thickness:	11.5µm
Permeability in the visible area:	90%
UV-filtering:	300Å
IR-permeability:	88%
Width:	300mm
Length:	300m

Type	PK	Cat. No.
SAROGOLD®	1	9.106 460



4 Parafilm® M sealing film

Can be stretched up to 200% and clings around irregular shapes and surfaces.

Parafilm® M is resistant to many polar substances such as saline solutions, inorganic acids and alkaline solutions for up to 48 hours (After this time it may become brittle). Parafilm® M conforms to general FDA requirements if used below 55°C.

Parafilm® M data

Toxicity	Non-toxic
Melting temperature:	60°C
Burning point:	301°C
Continued use temperature:	-45°C to +50°C
Stretching ability:	200%
Elongation at tear:	300%
Gas permeability over 24 hours at 23°C and 50% relative air humidity	
O ₂ (Oxygen):	less than 350cm ³ /m ²
N ₂ (Nitrogen):	less than 105cm ³ /m ²
CO ₂ (Carbon dioxide):	less than 1100cm ³ /m ²
Steam permeability over 24 hrs. at 37°C and 90% relative air humidity:	0.8g/m ²

Type	Width mm	Length m	PK	Cat. No.
PARAFILM® M	50	75	1	9.170 003
PARAFILM® M	100	38	1	9.170 002
PARAFILM® M	100	75	1	9.170 005
PARAFILM® M	500	15	1	9.170 004

Parafilm dispenser

Parafilm feeds through easily and is easy to cut using the safety cutting device. For rolls up to 100mm wide.

Type	PK	Cat. No.
PARAFILM® M dispenser, ABS	1	9.170 001



9.170 001

2. Occupational safety / Security

Eye protection/Eyeshields-Gloves/Vinyl, Nitril gloves

1 LLG-Safety eyeshields, blue

- CE approved to EN166 and EN 170
- Ultra-light allergy tested frame
- Integrated sideshields
- Temple adjustable in length and inclination
- Weight: 34g
- Frame colour: blue
- Lense: clear
- Anti-scratch lense



Colour	Lens	PK	Cat. No.
blue	clear, anti-scratch lens	1	9.006 001

2 LLG-Safety eyeshields, black/orange

- CE approved to EN166 and EN170
- Model with sporty and colourful line
- High wearability
- Moulding over nose bridge and temples for maximum comfort
- Allergenic rubber eyebrow protection
- Temple adjustable in length
- Weight: 30g
- Frame colour: black/orange
- Lense: clear
- Anti-scratch and anti-fog
- Protection against UV400



Colour	Lens	PK	Cat. No.
black/orange	clear, anti-scratch and anti-fog lens, UV protection	1	9.006 003

3 LLG-Visitor safety eyeshields, clear

- CE approved to EN166 and EN170
- Visitor Spec with single polycarbonate lens
- Can be worn over prescription glasses
- Side venting
- Lense: clear
- Weight: 43g



Colour	Lens	PK	Cat. No.
clear	clear, uncoated	10	9.006 002

4 Vinyl medical examination gloves, "Standard", powdered



Non-sterile. With beaded cuff. AQL 1.5 EN 455 T 1-3, CE.
Supplied in dispenser box containing 100 gloves. **Cat. I**

Size	PK	Cat. No.
S (6 to 7)	100	9.405 150
M (7 to 8)	100	9.405 151
L (8 to 9)	100	9.405 152
XL (9 to 10)	100	9.405 153



Gloves, powder-free, Nitrile "Soft Nitril"

EN 374 EN 374



Blue, non-sterile, rolling edges.
Manufactured by EN 455, T. 1-3, AQL 1.5, CE.
Type examination test acc. EN 374 (for "Soft Nitril" blue only).
Suitable for handling food. **Cat. III Low Chemical resistant** (for "Soft Nitril" blue only).

Size	Colour	PK	Cat. No.
S (6 to 7)	blue	100	9.005 312
M (7 to 8)	blue	100	9.005 313
L (8 to 9)	blue	100	9.005 314
XL (9 to 10)	blue	100	9.005 315
S (6 to 7)	white	100	9.005 362
M (7 to 8)	white	100	9.005 363
L (8 to 9)	white	100	9.005 364
XL (9 to 10)	white	100	9.005 365



9.005 314



9.005 363

2. Occupational safety / Security

Gloves/Nitrile gloves-Laboratory coats

1



1 Nitrile gloves, powder free, Kimtech Science* Sterling*

EN 374 EN 374 EN 420



- Synthetic nitrile polymer
- Contains no natural rubber latex
- Beaded cuff
- Textured fingertip for more sensitivity
- Ambidextrous
- Reduced storage up to 33%
- Reduces package waste up to 39%
- Up to 50% more gloves in a box
- Certificate of Analysis available online
- Available in all sizes and lengths of 24 cm (XS - M), 25cm (L - XL)

Quality Standards

- This is a PPE Category III product classified by EC Council Directive 89/686/EEC. It is tested in accordance with the EN Norms EN 420:2003
- Meets AQL level of 1.5 for pinholes
- Manufactured in accordance with Quality System ISO 9001
- Virus protection according to ISO 16604
- Food contact approved to BfR XXI recommendation
- Smallest thickness 0.07mm
- **Cat. III Low Chemical resistant.**

Size	Length cm	PK	Cat. No.
XS (5-6)	24	150	9.005 275
S (6-7)	24	150	9.005 276
M (7-8)	24	150	9.005 277
L (8-9)	25	150	9.005 278
XL (9-10)	25	140	9.005 279

2



2 Nitrile gloves, Kleenguard G 10, nitrile

- Powder-free
- Latex-free
- Lextured fingertips
- Designed for tasks requiring maximum dexterity without sacrificing protection
- Smallest thickness 0.05mm
- USDA and FDA approved for food handling
- 200 nitrile gloves per box (only size XS to L)
- **Cat. I**

Size	Length cm	PK	Cat. No.
XS (5-6)	24	200	9.005 266
S (6-7)	24	200	9.005 267
M (7-8)	24	200	9.005 268
L (8-9)	24	200	9.005 269
XL (9-10)	24	180	9.005 270

3



3 Ladies laboratory coats Type 81509

With long sleeves and fitted waist.

Reversible collar, concealed buttons, 1 outside breast pocket left, 1 inside breast pocket right, 2 side pockets with diagonal access with light grey piping, 2 short side slits, smooth backside, straight sleeve seam, Öko-Tex Standard 100, UV-Standard 801

Material: 100% cotton
Weight: approx. 210g/m²
Colour: white

Size	PK	Cat. No.
36 (S)	1	9.414 351
38 (S)	1	9.414 352
40 (M)	1	9.414 353
42 (M)	1	6.323 052
44 (L)	1	9.414 355
46 (L)	1	9.414 356
48 (XL)	1	9.414 357

2. Occupational safety / Security

Protective clothing/Laboratory coats, Coveralls-Warning labels

1 Mens laboratory coats Type 81996

Reversible collar, concealed buttons, 1 outside breast pocket left, 1 inside breast pocket right, 2 side pockets with diagonal access with light grey piping, 2 short side slits, straight, untapered back, straight sleeve seam, Öko-Tex Standard 100, UV-Standard 801

Material: 100% cotton
 Colour: white
 Weight: 240g/m²

Size	PK	Cat. No.
46 (S)	1	9.414 371
48 (M)	1	9.414 372
50 (M)	1	9.414 373
52 (L)	1	9.414 374
54 (L)	1	9.414 375
56 (XL)	1	9.414 376
58 (XL)	1	9.414 377
60 (XXL)	1	9.414 378

1



2 LLG-Overall tritex® light Type 5/6

Dust-tight chemical protective clothing,
 Cat. III/CE0516/Type 5/6

3-ply SMS material (spunbond-meltblown-spunbond). A meltblown filter membrane is embedded between two durable outer layers. The overall is breathable. Hood with elastic band, zipper cover as well as wrist and leg elastic.

Size	PK	Cat. No.
L	25	9.413 241
XL	25	9.413 242
XXL	25	9.413 243
XXXL	25	9.413 244

2



3 4 5 6 LLG-GHS warning labels, self-adhesive, roll in dispenser box

Dispenser box of 250 labels. These labels are produced using an extremely resistant 100µ PE film. Due to their special surface coating they are resistant to most solvents and excellent for indoor or outdoor use. The strong adhesive, although permanent, can be removed from glass containers without leaving any trace.

Bilingual signal word: German, English, French.
 Available in 2 sizes.

3



Type	Description	Label	Dimensions mm	PK	Cat. No.
GHS 01	warning	exploding bomb	26 x 37	250	9.105 700
GHS 01	danger	exploding bomb	26 x 37	250	9.105 701
GHS 02	warning	flame	26 x 37	250	9.105 702
GHS 02	danger	flame	26 x 37	250	9.105 703
GHS 03	warning	flame over circle	26 x 37	250	9.105 704
GHS 03	danger	flame over circle	26 x 37	250	9.105 705
GHS 04	warning	gas cylinder	26 x 37	250	9.105 706
GHS 05	warning	corrosive	26 x 37	250	9.105 707
GHS 05	danger	corrosive	26 x 37	250	9.105 708
GHS 06	danger	skull and crossbones	26 x 37	250	9.105 709
GHS 07	warning	exclamation mark	26 x 37	250	9.105 710
GHS 08	warning	health hazard	26 x 37	250	9.105 711
GHS 08	danger	health hazard	26 x 37	250	9.105 712
GHS 09	warning	environment	26 x 37	250	9.105 713
GHS 01	warning	exploding bomb	37 x 52	250	9.105 720
GHS 01	danger	exploding bomb	37 x 52	250	9.105 721
GHS 02	warning	flame	37 x 52	250	9.105 722
GHS 02	danger	flame	37 x 52	250	9.105 723
GHS 03	warning	flame over circle	37 x 52	250	9.105 724
GHS 03	danger	flame over circle	37 x 52	250	9.105 725
GHS 04	warning	gas cylinder	37 x 52	250	9.105 726
GHS 05	warning	corrosive	37 x 52	250	9.105 727
GHS 05	danger	corrosive	37 x 52	250	9.105 728
GHS 06	danger	skull and crossbones	37 x 52	250	9.105 729
GHS 07	warning	exclamation mark	37 x 52	250	9.105 730
GHS 08	warning	health hazard	37 x 52	250	9.105 731
GHS 08	danger	health hazard	37 x 52	250	9.105 732
GHS 09	warning	environment	37 x 52	250	9.105 733

4



GHS 01 / GHS 02 / GHS 03

5



GHS 04 / GHS 05 / GHS 06

6



GHS 07 / GHS 08 / GHS 09

2. Occupational safety / Security

Waste disposal/Furniture

1



1 LLG-Autoclavable Bags, PP

Clear bags imprinted with blue biohazard labeling designed for safe disposal. Constructed of 2 mm thick polypropylene, allowing for repeated autoclaving. Strong side seams for securely holding items. Front write-on panel. Autoclavable at 250°F (121°C).

Width mm	Length mm	PK	Cat. No.
310	660	50	9.404 050
415	600	50	9.404 051
610	810	50	9.404 052

LLG Laboratory stools, PU foam

According to EN 1728, EN 1021-1 and 1021-2, EN 61340-5-1. Surface enables easy cleaning and disinfecting. Revolving, height adjustable seat. Metal 5-star bar with castors or gliders. Chromed footing as outlined below.

Type	Seat height adjustment mm	Description	PK	Cat. No.
PUR Spezial plus	525 - 770	5 gliders + footring	1	9.732 204 2
PUR Standard plus	525 - 770	5 gliders + footring	1	9.732 208 3
PUR Standard	425 - 540	5 castors	1	9.732 209 4

2



9.732 204

3



9.732 208

4



9.732 209

LLG Laboratory chairs, PU foam

According to EN 1728, EN 1021-1 and 1021-2, EN 61340-5-1. Surface enables easy cleaning and disinfecting. Revolving, height adjustable seat. Metal 5-star bar with castors or gliders. Armrests and chromed footing as outlined below.

Type	Seat height adjustment mm	Description	PK	Cat. No.
PUR Standard II plus	525 to 770	5 gliders + footring + armrests	1	9.732 200 5
PUR Standard II	450 to 580	5 castors	1	9.732 201 6
PUR Standard I plus	525 to 770	5 gliders + footring	1	9.732 202 7
PUR Standard I	425 to 560	5 castors	1	9.732 203 8

5



9.732 200

6



9.732 201

7



9.732 202

8



9.732 203

3. Analytical measurement and testing pH meters/Accessories-Electrodes

1 LLG-Universal indicator paper, rolls

For the determination of pH values.

Range	PK	Cat. No.
pH		
1 - 11	1	9.129 800
1 - 14	1	9.129 802



Refill packs containing 3 rolls.

Range	PK	Cat. No.
pH		
1 - 11	3	9.129 801
1 - 14	3	9.129 803

2 LLG-Indicator paper strips

Range	Description	PK	Cat. No.
pH			
0 - 11	pad of 100 strips	100	9.129 804
0 - 14	pad of 100 strips	100	9.129 805
0 - 14	50 strips per pack	50	9.129 806
0 - 14	100 strips per pack	100	9.129 807



LLG-pH-Electrodes economy line

pH combination electrodes, PPO plastic shaft black, fixed protection basket, cartridge-style conductive system, salt reservoir. The salt reservoir helps to increase the service life of the electrode. This is recommended when using the electrode in media with fewer ions.

Specifications:

Temperature range:	0 to +60°C
pH range:	UW-Glass: pH 0 to 12, briefly pH 14
Dimensions (L x diam.):	120 x 12mm
Electrolyte:	solid electrolyte
Diaphragm:	1 x ceramic



9.040 811



9.040 810

Description	Cable	PK	Cat. No.
	m		
Electrode with cable (DIN plug)	2	1	9.040 812
Electrode with cable (BNC plug)	2	1	9.040 811 3
Electrode without cable (S7 connector head, please order Art. no. 9.040 817 or 9.040 818 separately)	-	1	9.040 810 4
Cable, diam. 5mm, applicable up to +75°C, with DIN plug	3	1	9.040 817
Cable, diam. 5mm, applicable up to +75°C, with BNC plug	3	1	9.040 818

5 LLG-pH-Electrodes laboratory line

pH combination electrodes, glass shaft, cartridge-style conductive system, salt reservoir. The salt reservoir helps to increase the service life of the electrode. This is recommended when using the electrode in media with fewer ions.

Specifications:

Temperature range:	-5 to +80°C
pH range:	U-Glass: pH 0 to 12, briefly pH 14
Dimensions (L x diam.):	120 x 12mm
Electrolyte:	gel-sealed
Diaphragm:	1 x zircon dioxide



9.040 814



9.040 813

Description	Cable	PK	Cat. No.
	m		
Electrode with cable (DIN plug)	1	1	9.040 815
Electrode with cable (BNC plug)	1	1	9.040 814 6
Electrode without cable (S7 connector head, please order Art. no. 9.040 817 or 9.040 818 separately)	-	1	9.040 813 7
Cable, diam. 5mm, applicable up to +75°C, with DIN plug	3		9.040 817
Cable, diam. 5mm, applicable up to +75°C, with BNC plug	3		9.040 818

3. Analytical measurement and testing

Balances/Accessories

Weighing bottles

DURAN®. DIN 12605. With interchangeable standard ground joint stopper, fused ceramic matt marking area, statement of volume and dimensions marked permanently on each weighing bottle.



1 Weighing bottles DURAN® with NS Stopper

DURAN®. With interchangeable NS stopper. With white inscription label. Burned-in imprint of capacity and size.

Capacity	Bottom diam.	Height	PK	Cat. No.
ml	mm	mm		
6	25	25	1	9.300 022
10	25	40	1	9.300 113
15	40	25	1	9.300 021
15	35	30	1	9.300 023
30	50	30	1	9.300 032
45	35	70	1	9.300 123
45	60	30	1	9.300 037
70	40	80	1	9.300 124
80	80	30	1	9.300 041
110	50	80	1	9.300 127



2 LLG-Aluminium weighing dish

Aluminium foil, for sample handling with a flanged, crimped wall for rigidity. Finger-tab handle can be etched for identification prior to weighing. Made from oil-free, lightweight aluminium.

Article 6.236 854 is without finger-tab.

Diam.	Height	PK	Cat. No.
mm	mm		
43	12	100	6.238 138
57	14	100	6.238 139
70	16	100	6.238 140
100	8	50	6.236 854 3

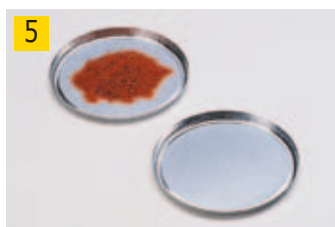


6.236 854



4 Weighing scoops, stainless steel 18/10

Capacity	PK	Cat. No.
ml		
3	1	6.238 169
6	1	6.238 170
10	1	6.238 171



5 Aluminium sample dishes

Ideal for use with infrared moisture analysers. Samples can be evenly distributed horizontally to absorb heat uniformly over the entire dish area. Can also be used as laboratory dishes.

Diam.	Height	PK	Cat. No.
mm	mm		
100	7	80	9.106 265



6 LLG-Weighing boats, PS

Polystyrene, disposable. Available in black or white.

Capacity	Dimensions	Colour	PK	Cat. No.
ml	(W x D x H) mm			
30	78 x 56 x 14	white	500	9.950 190
100	119 x 90 x 19	white	250	9.950 191
30	78 x 56 x 14	black	500	9.950 192
100	119 x 90 x 19	black	250	9.950 193

3. Analytical measurement and testing

Balances/Accessories-Thermometers/Laboratory thermometers

1 LLG-Weighing boats, antistatic, PS

Polystyrene, disposable. Antistatic, manufactured to eliminate the problems caused by static build-up when weighing fine powders.

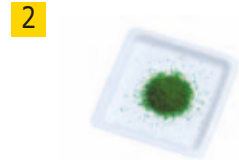
Capacity ml	Dimensions (W x D x H) mm	Colour	PK	Cat. No.
30	78 x 56 x 14	white	500	9.950 194
100	119 x 90 x 19	white	250	9.950 195
30	78 x 56 x 14	black	500	9.950 196
100	119 x 90 x 19	black	250	9.950 197



2 LLG-Weighing boats, PS

Polystyrene.

Size	Dimensions (W x D x H) mm	Colour	PK	Cat. No.
Medium	90 x 90 x 7	white	500	7.930 197



3 LLG-Weighing boats, PS

Polystyrene.

Capacity ml	Dimensions (W x D x H) mm	Colour	PK	Cat. No.
7	46 x 46 x 8	White	1000	9.900 792
100	85 x 85 x 24	White	1000	9.900 794
250	140 x 140 x 22	White	1000	9.900 796
5	55 x 35 x 6	White	1000	9.900 795



4 LLG-Weighing boats, antistatic, PS

Polystyrene. Antistatic.

Capacity ml	Dimensions (W x D x H) mm	Colour	PK	Cat. No.
7	46 x 46 x 8	White	1000	9.900 785
100	85 x 85 x 24	White	1000	9.900 786
250	140 x 140 x 22	White	1000	9.900 787
5	55 x 35 x 6	White	1000	9.900 788
7	46 x 46 x 8	Black	1000	9.900 789
100	85 x 85 x 24	Black	1000	9.900 791
250	140 x 140 x 22	Black	1000	9.900 800
5	55 x 35 x 6	Black	1000	9.900 801



5 LLG-General purpose thermometer

Graduation resistant against acids and alkalis, red filling. Graduations: 1°C. Breakage protected versions with FEP-coating available on request.



Measuring range °C	Length mm	Immersion depth mm	Capillary	PK	Cat. No.
-35 ... +50	300	total	white enameled, round	1	9.236 720
-20 ... +110	300	total	white enameled, round	1	6.206 594
-20 ... +150	300	total	white enameled, round	1	9.236 723
-10 ... +110	260	total	yellow enameled, round	1	9.236 721
-10 ... +110	270	76mm	yellow enameled, round	1	9.236 727
-10 ... +150	260	total	yellow enameled, round	1	9.236 722
-10 ... +150	260	76mm	yellow enameled, round	1	9.236 728
-10 ... +200	300	total	yellow enameled, round	1	9.236 724
-10 ... +200	300	total	white enameled, round	1	9.236 725
-10 ... +200	300	76mm	yellow enameled, round	1	9.236 729
-10 ... +250	300	total	yellow enameled, round	1	9.236 726

3. Analytical measurement and testing

Thermometers/Laboratory thermometers

1



1 LLG-Precision thermometer with certificate

Filling: red, capillary: yellow enameled, round, immersion depth: total.

Optionally available with official calibration certificate, works certificate or DKD-calibration certificate.

Please specify with order.

Breakage protected versions with FEP-coating available on request.

Measuring range °C	Graduations °C	Length mm	PK	Cat. No.
-50 ... +50	1.0	280	1	9.236 800
-10 ... +100	1.0	305	1	9.236 783
-10 ... +150	1.0	305	1	9.236 784
-10 ... +200	1.0	350	1	9.236 788
-50 ... +50	0.5	300	1	9.236 801
-10 ... +100	0.5	270	1	9.236 785
-10 ... +150	0.5	350	1	9.236 786

LLG-High-Precision thermometers

For precise measuring. Filling: red, capillary: yellow enameled, round, immersion depth: total.

Optional available with works certificate or DKD-calibration certificate. Please specify with order.

Breakage protected versions with FEP-coating available on request.

Measuring range °C	Graduations °C	Length mm	PK	Cat. No.
-1 ... +101	0.1	610	1	9.236 790
-0 ... +50	0.1	420	1	9.236 787
-1 ... +200	0.2	610	1	9.236 789

2



2 LLG-Precision thermometer, -200°C up to +30°C

For measuring low temperatures from -200 up to +30°C. Enclosed scale DIN 12778. Graduations 1°C, immersion depth total.

Optional available with, works certificate or DKD-calibration certificate. Please specify with order.

Breakage protected versions with FEP-coating available on request.

Measuring range °C	Length mm	Capillary	Charge colour	PK	Cat. No.
-200 ... +30	350	blue reflecting, prismatic	Pentanol, red	1	9.236 780
-150 ... +30	300	white enameled, prismatic	Pentanol, red	1	9.236 791
-100 ... +30	305	transparent, prismatic	Alcohol, red	1	9.236 781
-50 ... +30	305	transparent, prismatic	Toluol, red	1	9.236 782

3



3 LLG-metallic protection cases

For all common glass thermometers.

For Thermometers Length mm	Overall length mm	Material	PK	Cat. No.
200	225	Brass	1	9.236 900
220	245	Brass	1	9.236 909
250	275	Brass	1	9.236 901
280	305	Brass	1	9.236 910
300	325	Brass	1	9.236 902
320	345	Brass	1	9.236 911
340	365	Brass	1	9.236 903
360	385	Brass	1	9.236 912
380	405	Brass	1	9.236 904
400	425	Brass	1	9.236 905
420	445	Brass	1	9.236 913
450	475	Brass	1	9.236 906
480	505	Brass	1	9.236 907
500	525	Brass	1	9.236 914
550	575	Brass	1	9.236 908
200	225	Stainless steel	1	9.236 920
250	275	Stainless steel	1	9.236 921
280	305	Stainless steel	1	9.236 923
300	325	Stainless steel	1	9.236 922

3. Analytical measurement and testing

Thermometers/Laboratory thermometers

1 LLG-Exact-Temp thermometers

For monitoring critical temperature conditions in

- deep freezes
- refrigerators
- cold rooms
- blood bank refrigerators
- incubators
- warming chambers

Characteristics:

- thermometer certifiable to National Standards
- supplied with works test certificate
- thermometer stem safely encapsulated in PTFE
- each thermometer is mounted in a square-shaped shatter-proof plastic bottle filled with a liquid to ensure accurate readings despite the opening and closing of instrument doors.
- each thermometer has an individual serial number.



LLG-Exact-Temp Standard thermometers, red spirit-filled

For	Measuring range	Grad.	Length	Liquid filling	PK	Cat. No.
	°C	°C	mm			
Freezers	-90 ... +20	1.0	145	Propylene Glycol	1	9.235 663
Refrigerators	-30 ... 0	0.5	125	Propylene Glycol	1	9.235 664
Blood banks	-5 ... +20	0.5	145	Ethylene Glycol	1	9.235 665
Coolers	-5 ... +15	0.5	125	Ethylene Glycol	1	9.235 666
Incubators	+18 ... +50	0.5	135	Ethylene Glycol	1	9.235 667
Warming rooms, ovens	+20 ... +130	1.0	135	Vermiculite	1	9.235 668
Warming rooms, ovens	+35 ... +200	1.0	145	Vermiculite	1	9.235 669

LLG-Exact-Temp Standard thermometers, mercury-filled

For	Measuring range	Grad.	Length	Liquid filling	PK	Cat. No.
	°C	°C	mm			
Freezers	-30 ... 0	0.5	115	Propylene Glycol	1	9.235 670
Refrigerators	-5 ... +15	0.5	125	Ethylene Glycol	1	9.235 671
Incubators	+18 ... +50	0.5	135	Ethylene Glycol	1	9.235 672
Warming rooms, ovens	+20 ... +130	1.0	135	Vermiculite	1	9.235 673
Warming rooms, ovens	+35 ... +200	1.0	145	Vermiculite	1	9.235 674

LLG-Precision thermometers Exact-Temp, blue spirit-filled

For	Measuring range	Grad.	Length	Liquid filling	PK	Cat. No.
	°C	°C	mm			
Freezers	-25 ... -5	0.1	210	Propylene Glycol	1	9.235 675
Refrigerators	-2 ... +10	0.1	180	Propylene Glycol	1	9.235 676
Blood banks	-2 ... +10	0.1	180	Ethylene Glycol	1	9.235 677
Incubators	+15 ... +30	0.1	180	Ethylene Glycol	1	9.235 678
Incubators	+25 ... +45	0.1	190	Ethylene Glycol	1	9.235 679
Warming rooms, ovens	+95 ... +115	0.1	200	Vermiculite	1	9.235 680

LLG-Precision thermometers Exact-Temp, mercury-filled

For	Measuring range	Grad.	Length	Liquid filling	PK	Cat. No.
	°C	°C	mm			
Cold rooms, Freezers	-25 ... -5	0.1	210	Propylene Glycol	1	9.235 681
Refrigerators	-2 ... +10	0.1	180	Propylene Glycol	1	9.235 682
Blood banks	-2 ... +10	0.1	180	Ethylene Glycol	1	9.235 683
Incubators	+15 ... +30	0.1	180	Ethylene Glycol	1	9.235 684
Incubators	+25 ... +45	0.1	190	Ethylene Glycol	1	9.235 685
Warming rooms, ovens	+95 ... +115	0.1	200	Vermiculite	1	9.235 686

3. Analytical measurement and testing

Thermometers/Laboratory thermomters-Contact, Insertion thermometers

1 LLG-Pocket thermometers

Complete with case.

Graduations 1°C, length 140mm, immersion depth total.

Measuring range °C	Form	Capillary	Charge colour	PK	Cat. No.
-38 ... +50	enclosed scale	transparent, prismatic	red	1	9.236 740
-10 ... +50	enclosed scale	transparent, prismatic	red	1	9.236 741
-10 ... +100	enclosed scale	transparent, prismatic	red	1	9.236 742
-38 ... +50	enclosed scale	transparent, prismatic	blue	1	9.236 743
-10 ... +50	enclosed scale	transparent, prismatic	blue	1	9.236 750
-10 ... +100	enclosed scale	transparent, prismatic	blue	1	9.236 751
-38 ... +50	stem form	white enameled, prismatic	red	1	9.236 752
-10 ... +50	stem form	white enameled, prismatic	red	1	9.236 753
-10 ... +100	stem form	white enameled, prismatic	red	1	9.236 754
-38 ... +50	stem form	white enameled, prismatic	blue	1	9.236 755
-10 ... +50	stem form	white enameled, prismatic	blue	1	9.236 756
-10 ... +100	stem form	white enameled, prismatic	blue	1	9.236 757

2 LLG-Digital pocket thermometer Type 12050

Measuring range -50 to +150°C, accuracy ±1°C. Probe made of stainless steel, 120 x 3.5mm, with protective plastic sleeve and clip, with battery 1 x 1.5V (LR44). Overall dimensions (L x W): 75 x 20mm.

Type	PK	Cat. No.
LLG-Digital pocket thermometer Type 12050	1	9.236 706

3 LLG-Digital pocket thermometer Type 12090

Waterproof. Measuring range -50 to +150°C/-58 to +302°F, accuracy ±1°C. With hold function. Probe made of stainless steel, 85 x 3.5mm, with protective plastic sleeve, with battery 1 x 1.5V (LR44). Overall dimensions (L x W): 185 x 30mm.

Type	PK	Cat. No.
LLG-Digital pocket thermometer Type 12090	1	9.236 707



4

4 LLG-Digital pocket thermometer Type 12080

Waterproof. Measuring range -50 to +300°C/-58 to +572°F, accuracy ±1°C until 150°C, above ±2°C.

With hold function and Max/Min function. Probe made of stainless steel, 85 x 3.5mm, with protective plastic sleeve, with battery 1 x 1.5V (LR44). Overall dimensions (L x W): 195 x 50mm.

Type	PK	Cat. No.
LLG-Digital pocket thermometer Type 12080	1	9.236 703

5

5 LLG-Digital pocket thermometer Type 12060

Measuring range -50 to +150°C, accuracy ±1°C. With hold function. Probe made of stainless steel, 125 x 3.5mm, with protective plastic sleeve and clip, with battery 1 x 1.5V (LR44). Overall dimensions (L x W): 60 x 20mm.

Type	PK	Cat. No.
LLG-Digital pocket thermometer Type 12060	1	9.236 701

6

6 Digital hand held thermometer Type 12010

Measuring range -50 to +150°C, accuracy ±1°C. With hold function. Penetration probe 105 x 3.5mm.

With battery 1 x 1.5V (LR44). Overall dimensions (L x W): 75 x 40mm.

Type	PK	Cat. No.
Digital hand held thermometer Type 12010	1	9.236 700

3. Analytical measurement and testing

Thermometers/Contact, Insertion thermometers

1 Digital hand held thermometer Type 12100

Waterproof. Measuring range -50 to +150°C/-58 to +302°F, accuracy $\pm 1^\circ\text{C}$ until 150°C above $\pm 2^\circ\text{C}$. With hold function and Max/Min function. Memory capacity 10. Penetration probe made from stainless steel, 130 x 3.5mm with 1m cable and handle. With battery 1 x 1.5V AAA. Overall dimensions (L x W): 180 x 85mm.

Type	PK	Cat. No.
Digital hand held thermometer Type 12100	1	9.236 704



2 Digital hand held thermometer Type 12200

Waterproof. Measuring range -50 to +300°C/-58 to +572°F, accuracy $\pm 1^\circ\text{C}$ until 150°C above $\pm 2^\circ\text{C}$. With hold function and Max/Min function. Penetration probe made of stainless steel, 140 x 3.5mm with 1m cable and handle. With battery 1 x 1.5V AAA. Overall dimensions (L x W): 140 x 75mm.

Type	PK	Cat. No.
Digital hand held thermometer Type 12200	1	9.236 705

Hand held thermometer Type 12300

Suitable for all probes Type K (NiCr-Ni). Measuring range -200 to +1370°C/-328 to +2498°F. With hold and Max/Min function and 10 values memory function. With temperature limit alarm function, integrated display light and holster. With battery 1 x 1.5V "AAA". Dimensions (L x W): 200 x 85mm. Accuracy: $\pm 1^\circ\text{C}$ from -49°C to +740°C.

Probe (9.236 709) - please order separately.

Type	PK	Cat. No.
Hand held thermometer Type 12300, without sensor	1	9.236 708 ³
Mineral-insulated thermocouple 1 x NiCr-Ni type K acc. to DIN EN 60584 class 1	1	9.236 709 ⁴



9.236 708



9.236 709

5 Maximum/Minimum Indoor/outdoor thermometer

Optimal for controlling of refrigerator and freezer temperatures. Measuring range - 50 to +70°C, accuracy $\pm 0.1^\circ\text{C}$. External remote sensor cable, length 3m, with stand and accessories for wall mounting. Dimensions: approx. 80 x 55 x 20mm, with battery.

Official calibration certificate with one or two test points available on request.

Type	PK	Cat. No.
Maximum/Minimum indoor/outdoor thermometer	1	9.235 120



3. Analytical measurement and testing

Timing/Timers



1 Interval timer with alarm

Benchtop mechanical timer. Suitable for standing, hanging and in addition on the back of two magnets, which allows the fitting of metal parts. Casing and rotary setting knob are white, the dial is black. Running time max. 60mins.

Dimensions (WxDxH): 65 x 35 x 65mm

Type	PK	Cat. No.
Interval timer with alarm	1	9.260 020



2 LLG-Electronic countup timer

Timer and stopwatch, up to 99min. and 59sec., rubber coated, with magnetic attachment, battery LR 44 inclusive, diam. 54 x 16.5mm, approx. 40g

Type	PK	Cat. No.
Electronic Countup Timer	1	9.260 150



3 3-channel-timer

Indispensable for laboratories. Triple timer with large display.

- Indicates three separate times simultaneously
- Stopwatch function
- Integrated quartz watch
- Supplied with magnet and clip

Technical Specifications

Range: 1sec to 20hours
 Operating temperature: 0 to 50°C
 Power supply: 1.5V AAA
 Dimensions (WxDxH): 88 x 71 x 24mm
 Weight: 115g

Type	PK	Cat. No.
3-channel-timer	1	6.233 690



4 Dual Timer TR 118 OS

- Large, 6 digit, LCD readout
- 2 separate timers in one instrument
- Countdown/countup 99 hrs. 59 mins. 59 secs.
- Clock function switch
- Audible alarm sounds when 'zero' reached
- With pocket clip/bench stand and magnet
- Operating instructions in 3 languages.
- Supplied with AAA 1.5V battery

Dimensions (WxDxH): 73 x 66 x 18mm
 Weight: 63g

Type	PK	Cat. No.
TR 118 OS	1	9.260 186



5 Microchronometer, TR 112 OS

- 4-figure LCD time readout for minutes and seconds
- Programmable for up to 99 mins, 59 secs.
- 30-second audible alarm when timed period has expired
- Countdown
- Timer memory function
- Case incorporates combined bench stand/pocket clip with magnet
- With instructions in 3 languages
- Supplied with 1 x 1.5V AAA battery

Dimensions (WxDxH): 66 x 56 x 18mm
 Weight: 45g

Type	PK	Cat. No.
TR 112 OS	1	9.260 181

3. Analytical measurement and testing

Density determination/Density meters

1 LLG-Precision-Hydrometers

Saccharometers

Measuring range, graduation: 0.1% mas, with thermometer: 0 to +35°C, graduation: 1°C, calibrated at 20°C. Filling: Hg. Overall length: 350mm. Optionally available with official calibration certificate, works certificate or DKD-calibration certificate. Please specify with order.

Type	Measuring range % mas	PK	Cat. No.
1	0 - 10	1	9.236 770
2	10 - 20	1	9.236 771
3	20 - 30	1	9.236 772
4	30 - 40	1	9.236 773
5	40 - 50	1	9.236 774
6	50 - 60	1	9.236 775
7	60 - 70	1	9.236 776
8	70 - 80	1	9.236 777
9	80 - 90	1	9.236 778

2 Alcoholmeters

Measuring range, graduation: 0.1% vol, with thermometer 0 to +30°C, graduation: 0.5°C, calibrated at 20°C. Filling: blue. Overall length: 380mm. Optionally available with official calibration certificate, works certificate or DKD-calibration certificate. Please specify with order.

Type	Measuring range % vol	PK	Cat. No.
1	0 - 10	1	9.236 810
2	10 - 20	1	9.236 811
3	20 - 30	1	9.236 812
4	30 - 40	1	9.236 813
5	40 - 50	1	9.236 814
6	50 - 60	1	9.236 815
7	60 - 70	1	9.236 816
8	70 - 80	1	9.236 817
9	80 - 90	1	9.236 818
10	90 - 100	1	9.236 819

3 Lactodensimeter

Measuring range, graduation 0.0005g/cm³.

Optionally available with official calibration certificate, works certificate or DKD-calibration certificate. Please specify with order.

Type	Measuring range g/cm ³	Graduations °C	Measuring range Thermometer °C	Charge	Overall length mm	PK	Cat. No.
0	1015 - 1040	1	0 to +35	blue	260	1	9.236 830
0	1025 - 1036	1	+5 to +40	Hg	370	1	9.236 831
1	1020 - 1040	0.5	+10 to +30	Hg	320	1	9.236 832
2	1025 - 1036	1	+5 to +40	Hg	370	1	9.236 833
3	1020 - 1040	without	without	without	230	1	9.236 834
0	1015 - 1040	without	without	without	210	1	9.236 835
1	1015 - 1040	1	0 to +40	blue	270	1	9.236 836
0	1020 - 1040	1	0 to +35	Hg	250	1	9.236 837

1



2



3



4. Stirring, Shaking, Mixing

Magnetic stirrers/Hotplates/With heating

1 LLG-RCT standard *safety control*

- Magnetic stirrer with new technology and new functions:
- integrated temperature control
 - incl. PT 1000 temperature sensor (PT 1000.60)
 - exact temperature and speed setting via digital display, even when switched off
 - digital display of set safety temperature limit
 - hot top indicator, hot surface warning to prevent burns
 - digital error code display
 - with adjustable safety circuit of heating plate temperature (+50 to +360°C)
 - safety magnetic stirrer with heating, suitable for unsupervised operation
 - DIN 12878 connector for attaching a contact thermometer, e.g. ETS-D5; enables precise temperature control directly in the heated medium
 - enhanced safety due to improved heat control technology
 - enclosed assembly (IP42) guarantees long service life
 - highly polished, aluminum hotplate for optimal heat transfer
 - improved magnetic coupling
 - supplied with housing protection cover H 98

Specifications

Drive unit

Stirring quantity (H ₂ O):	20L
Motor rating input/output:	16/9W
Speed display:	digital
Speed range:	50 to 1500rpm
Max. magnetic bar (L x diam.):	80 x 10mm

Heating function

Speed display:	digital
Heat output:	600W
Heating rate (1 litre H ₂ O in H 15):	6.5K/min
Temperature range:	RT to 310°C
Setting accuracy:	±1K
Temp. variation without temp. sensor:	±2K
Adjustable safety circuit:	50 to 360°C
Digital temperature limit display:	50 to 360°C
Control accuracy with sensor:	PT 1000/±1K ETS-D5/±0.5K

Heating plate

Material:	aluminium alloy
Dimensions:	135mm diam.

General data

Dimensions (WxDxH):	160 x 270 x 85mm
Weight:	2.5kg
Operating temperature range:	5 to 40°C
Operating humidity range:	80% R.H.
Protection class acc. to DIN EN 60529:	IP42
Tested to DIN EN IEC 61010-1.	

Type	PK	Cat. No.
RCT Standard safety control incl. PT1000	1	9.720 250

Optional accessories:

Electronic contact thermometer ETS-D5, Ikaflon® stirring bars, Trika® stirring bars, RS 1 stirring bar set, RSE Stirring bar remover, Quarter System, Reaction block System



4. Stirring, Shaking, Mixing

1 LLG-Magnetic stirring bars, cylindrical, PTFE

Suitable for many applications. Further sizes available on request.

Length mm	Diam. mm	PK	Cat. No.
12	3	10	9.198 766
10	6	10	9.198 910
20	6	10	9.198 920
25	6	10	9.198 925
30	6	10	9.198 930
40	8	10	9.198 940
45	8	10	9.198 945
50	8	10	9.198 950
25	8	10	9.198 767



2 LLG-Magnetic stirring bars, PTFE, spherical

For test tubes or vigorous, eccentric stirring.

Diam. mm	PK	Cat. No.
12	10	9.198 912



3 LLG-Magnetic stirring bar retrievers, PTFE

Magnetic bar retriever is an essential tool to pick up the magnetic bars. It has a powerful magnet sealed in one end and a long stem of total 300mm length.

Length mm	Diam. mm	PK	Cat. No.
300	8	1	4.008 501



5. Sample preparation

Grinding/Mortars-Mixing, Homogenisation/Homogenisers



1 LLG-Mortars only, porcelain, rough inside

DIN 12906

Capacity	Height	Ext. diam.	PK	Cat. No.
ml	mm	mm		
70	41	63	1	6.227 149
110	50	83	1	6.232 577
25	32	51	1	9.164 410
75	45	76	1	9.164 411
220	64	105	1	9.164 412
400	71	125	1	9.164 413



2 LLG-Pestle only, porcelain, rough

Head diam.	Length	PK	Cat. No.
mm	mm		
14	54	1	6.227 150
30	135	1	6.232 574
24	115	1	9.164 420
36	150	1	9.164 421
42	175	1	9.164 422

LLG-Micropestles, stainless steel

Polished stainless steel, micropestles. Precise fitting, manufactured in one-piece, smooth handle sections, can be disinfected easily. Minimum homogenate displacement due to tapered piston.

For Reaction tubes:

For homogenisation of cells, tissues or foodstuffs/feed samples.

- For tubes with 0.5ml, 1.5ml and 2.0ml
- Can be cooled down to -196°C
- Sterilisable in an autoclave or dry heat at +200°C
- Suitable for PCR applications
- Alternative to single-use plastic pestles

For Sarstedt tubes:

Primarily used with food analysis with light and highly processed samples.

- For tubes 13ml

For bottle ml	Length mm	PK	Cat. No.
0.5	94	1	9.314 500 3
1.5	124	1	9.314 501 4
2.0	120	1	9.314 502 5
13.0	190	1	9.314 503 6



9.314 500



9.314 501



9.314 502



9.314 503



6. Distillation, Separation, Filtration

Distillation/Jointed glassware

1 Round bottom flasks, borosilicate glass 3.3

- manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- meets the highest quality standards according to DIN EN ISO 4797.
- reinforced rims are used to prevent breaking during washing and transportation.

Capacity	Height approx.	Neck diam. approx.	Flask external diam. approx.	NS	PK	Cat. No.
ml	mm	mm	mm			
50	105	22	51	14/23	1	6.236 508
50	105	34	51	29/32	1	6.238 345
100	115	22	64	14/23	1	6.236 346
100	115	34	64	29/32	1	6.236 774
250	145	34	85	29/32	1	6.236 303
500	175	34	105	29/32	1	6.240 426
1000	210	42	131	24/29	1	6.237 702
2000	260	34	166	29/32	1	6.238 472



2 Round bottom flasks with two necks, borosilicate glass 3.3

Borosilicate glass 3.3 which is resistant to heat and almost all chemicals. They have thick walls, heavy bases and reinforced rims which prevent breaking. They meet the highest quality standards according to DIN 12394. Side arms are either parallel or 45 degree angled with each other. NS necks are in compliance with DIN 12242 standards.

Central socket (NS): 29/32
Side necks (NS): 14/23 or 29/32



Capacity	Flask external diam.	Central neck	Parallel side necks	Description	PK	Cat. No.
ml	mm	NS	NS			
250	85	29/32	14/23	angled side arm	1	4.008 386
500	105	29/32	14/23	angled side arm	1	4.008 387
1000	131	29/32	14/23	angled side arm	1	4.008 388
250	85	29/32	29/32	parallel side arm	1	6.240 973
500	105	29/32	29/32	parallel side arm	1	6.240 974
1000	131	29/32	29/32	parallel side arm	1	6.240 975

3 Round bottom flasks with three necks, borosilicate glass 3.3

Borosilicate glass 3.3 which is resistant to heat and almost all chemicals. They have thick walls, heavy bases and reinforced rims which prevent breaking. They meet the highest quality standards according to DIN 12394. Side arms are at a 45 degree angle to each other. NS necks are in compliance with DIN 12242 standards.

Capacity	Flask external diam.	Central neck	Angled side necks	PK	Cat. No.
ml	mm	NS	NS		
250	85	29/32	14/23	1	4.008 390
500	105	29/32	14/23	1	4.008 391
1000	131	29/32	14/23	1	4.008 392
250	85	29/32	29/32	1	6.240 976
500	105	29/32	29/32	1	6.240 977
1000	131	29/32	29/32	1	6.240 978
2000	166	29/32	29/32	1	4.008 396
100	64	29/32	14/23	1	4.008 389
250	85	29/32	19/26	1	4.008 393
500	105	29/32	19/26	1	4.008 394
1000	131	29/32	19/26	1	4.008 395



6. Distillation, Separation, Filtration

Distillation/Jointed round bottom flasks and accessories



1 Flat bottom flasks, NS joint neck, borosilicate glass 3.3

- Borosilicate glass 3.3 which is resistant to heat and almost all chemicals.
- Meets the highest quality standards according to DIN EN ISO 4797.
- Reinforced rims are used to prevent breaking during washing and transportation.

Capacity ml	Height approx. mm	NS	PK	Cat. No.
100	110	29/32	1	6.236 773
250	140	29/32	1	6.238 346
500	170	29/32	1	6.240 425



2 Flask rings

Pressed cork. Height 30mm.

For flasks ml	Ext. diam. mm	Int. diam. mm	PK	Cat. No.
10 / 100	80	30	1	9.143 003
250 / 500	110	60	1	9.143 006
1000 / 2000	140	90	1	9.143 009
3000	170	120	1	9.143 012
4000	210	150	1	9.143 015



3 LAB rings

Rings to stabilise glassware and plasticware on shakers or to immerse in water baths.
Vinyl-coated lead rings will not mark or scratch benchtops and labware.

Type	For flasks ml	Int. diam. mm	PK	Cat. No.
C-Shape	125 to 500	42	1	9.149 902
C-Shape	250 to 1000	51	1	9.149 905
C-Shape	500 to 2000	54	1	9.149 906
C-Shape	1000 to 4000	66	1	9.149 907



4 Erlenmeyer flasks, NS neck, borosilicate glass 3.3

Borosilicate glass 3.3. Resistant to heat and almost all chemicals. They meet the highest quality standards according to DIN 12387. NS necks are in compliance with DIN 12242 standards. Inscriptions are in white enamel which is specially designed for glass use.

Capacity ml	Height mm	NS	PK	Cat. No.
50	85	14/23	1	9.141 105
50	85	19/26	1	9.141 106
50	85	29/32	1	9.141 107
100	100	14/23	1	9.141 108
100	100	29/32	1	9.141 109
250	140	29/32	1	9.141 110
300	156	29/32	1	9.141 111
500	175	29/32	1	9.141 112
1000	220	29/32	1	9.141 113

6. Distillation, Separation, Filtration

Distillation/Greases-Glass components

1 Stopcock and ground joint greases, GLISSEAL

For sealing and lubricating fixed, and rotating, ground glass joints, stopcocks, plastic or metal connections and for solving even the most difficult lubrication problems, e.g. in fine mechanisms and the optics industry. Only a very thin application is required, and it is easy to remove, by using deconex® cleaning concentrates. Supplied in tubes of 60g.

Normal quality, with red cap:

Colour:	white, translucent
Dripping point:	without
Working temperature ranges:	
In air:	-40 to 200°C
Under vacuum:	-40 to 300°C
For short periods, up to:	350°C

High vacuum quality, with blue cap:

Colour:	dark brown, transparent
Dripping point:	without
Working temperature range:	
In air:	-40 to 220°C
Under vacuum:	-40 to 320°C
For short periods, up to:	400°C

Type	PK	Cat. No.
Normal quality GLISSEAL	1	9.116 934
High vacuum quality GLISSEAL	1	9.116 935



2 NS-Glass stoppers, hollow borosilicate glass

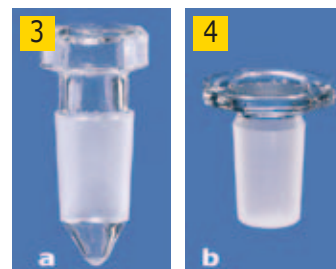
Manufactured from borosilicate glass 3.3 which is resistant to heat and almost all chemicals. They meet the highest quality standards according to DIN 12252. Lower closed end of stopper features a "drip-tip" to ensure adhered liquid is returned to the flask. Hexagonal flat head prevents the stopper from rolling and allows stopper to be stood on end preventing contamination of the ground surface.

NS	Description	PK	Cat. No.
24/29	clear	1	6.240 333



3 4 NS-Glass stoppers, DURAN® and borosilicate glass

DIN 12252. Hexagonal-hollow or octagonal-solid.



NS	Description	PK	Cat. No.
7/16	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 002
10/19	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 003
12/21	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 004
14/23	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 006
19/26	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 007
29/32	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 009
45/40	Borosilicate glass 3.3, hollow, hexagonal	1	9.230 012
10/19	DURAN®, solid, octagonal	1	9.230 053
12/21	Borosilicate glass 3.3, solid, octagonal	1	9.230 054
14/23	Borosilicate glass 3.3, solid, octagonal	1	9.230 056
19/26	Borosilicate glass 3.3, solid, octagonal	1	9.230 057
24/29	Borosilicate glass 3.3, solid, octagonal	1	9.230 058
29/32	Borosilicate glass 3.3, semi solid, octagonal	1	9.230 059
34/35	Borosilicate glass 3.3, semi solid, octagonal	1	9.230 061
45/40	DURAN®, semi solid, octagonal	1	9.230 062

6. Distillation, Separation, Filtration

Distillation/Glass components



1 Gas washing bottle, PP

250ml graduated cylinder with Vikem vinyl stopper.
With insert and 70µm PE frit.

Type	PK	Cat. No.
Gas washing bottle	1	9.110 290



2 3 Caps for gas washing bottles

DURAN® tubing. Ground joint 29/32. With or without diffuser frit.

Type	Porosity	Description	PK	Cat. No.
Without frit	0	nozzle	1	9.110 380
With frit	0	nozzle	1	9.110 390
With frit	1	nozzle	1	9.110 391



4 Cork stoppers

A1 superb quality. Non-porous.

Top diam. mm	Bottom diam. mm	Height mm	PK	Cat. No.
6	3	16	1	9.230 703
9	6	17	1	9.230 706
10	7	18	1	9.230 707
11	8	20	1	9.230 708
12	9	20	1	9.230 709
13	10	22	1	9.230 710
15	12	22	1	9.230 712
17	14	22	1	9.230 714
18	15	22	1	9.230 715
19	16	23	1	9.230 716
22	18	26	1	9.230 718
24	20	27	1	9.230 720
26	22	27	1	9.230 722
28	24	27	1	9.230 724
30	26	27	1	9.230 726
32	28	27	1	9.230 728
34	30	27	1	9.230 730
36	32	27	1	9.230 732
38	34	27	1	9.230 734
40	36	27	1	9.230 736
42	38	27	1	9.230 738
45	41	27	1	9.230 741
50	45	30	1	9.230 745
55	50	30	1	9.230 750
60	55	30	1	9.230 755
65	60	30	1	9.230 760
70	65	30	1	9.230 765

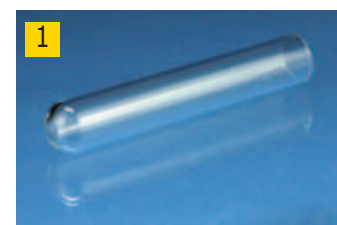
6. Distillation, Separation, Filtration

Filtration/Separating, centrifuging/Separating funnels

1 2 Centrifuge tubes, round bottom, AR glass®

Round bottom. Graduated or ungraduated.

Capacity	Diam.	Length	Grad.	PK	Cat. No.
ml	mm	mm	ml		
10 to 15	17	98	no	1	9.315 201
10 to 15	17	107	no	1	9.315 203
50 to 55	35	98	no	1	9.315 207
70 to 100	40	115	no	1	9.315 210
10 to 15	17	98	yes	1	9.315 217
10 to 15	17	107	yes	1	9.315 220
25	25	100	yes	1	9.315 225

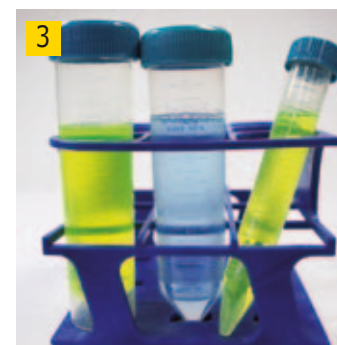


3 LLG-Centrifuge tubes, PP

Polypropylene tubes with very good thermal, mechanical and chemical stability. Fitted with screw-on closure. Packed in boxes or bags. With graduations and labelling area. Cytotoxicity-free, DNase/RNase- and human DNA-free.

Centrifugation capacity (RCF): 6000 x g

Diam. mm	Height mm	Capacity ml	Form	Description	PK	Cat. No.
17.0	120	15	conical	sterile, single packed	50	9.316 062
17.0	120	15	conical	non-sterile	500	9.316 063
30.0	120	50	conical	sterile, single packed	50	9.316 064
30.0	120	50	conical	non-sterile	500	9.316 065
30.0	120	50	conical	non-sterile, in rack	50	9.316 066
30.0	120	50	with rim	sterile, single packed	50	9.316 067
30.0	120	50	with rim	sterile	50	6.238 728



4 Separating funnels "squibb"

Supplied with PTFE stopcock, graduated or ungraduated. According to DIN 12452.

Capacity ml	NS	Description	PK	Cat. No.
50	19/26	ungraduated	1	4.008 422
100	19/26	ungraduated	1	6.241 670
250	29/32	ungraduated	1	6.238 526
500	29/32	ungraduated	1	6.238 527
1000	29/32	ungraduated	1	6.241 669
2000	29/32	ungraduated	1	6.241 668
50	19/26	graduated	1	6.236 317
100	19/26	graduated	1	6.236 318
250	29/32	graduated	1	6.236 319
500	29/32	graduated	1	6.236 320
1000	29/32	graduated	1	6.236 321
2000	29/32	graduated	1	6.240 412



5 Buchner funnels, porcelain

For filter diam.	Capacity	PK	Cat. No.
mm	ml		
70	120	1	6.231 541
55	70	1	6.237 328
45	35	1	6.239 903



6. Distillation, Separation, Filtration

Filtration/Filter paper, qualitative

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.



1 LLG-Filter paper, qualitative, filter circles

Fast

Diam. 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 LLG-Filter paper, qualitative, filter circles

Medium speed

Diam. 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

LLG-Filter paper, qualitative, sheets

Medium speed

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



3 LLG-Filter paper, qualitative, filter circles

Medium speed

Diam. 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 LLG-Filter paper, qualitative, folded filters

Medium speed

Diam. 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

6. Distillation, Separation, Filtration

Filtration/Filter paper, quantitative-Extraction thimbles

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.

1 LLG-Quantitative filter paper, circles

Fast, ashless

Diam. mm	Filtration time secs.	PK	Cat. No.
70	10	100	9.045 840
90	10	100	9.045 841
110	10	100	9.045 842
125	10	100	9.045 843
150	10	100	9.045 844
185	10	100	9.045 845



2 LLG-Quantitative filter paper, circles

Slow, ashless

Diam. mm	Filtration time secs.	PK	Cat. No.
90	180	100	9.045 850
125	180	100	9.045 851
150	180	100	9.045 852



LLG-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.

3 LLG-Glass microfibre filters, filter circles

Diam. 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



4 LLG-Extraction thimbles, Cellulose

Neutral and fat free.

Diam. mm	Length mm	PK	Cat. No.
22	80	25	9.045 700
20	80	25	9.045 701
33	80	25	9.045 702
33	94	25	9.045 703
33	100	25	9.045 704
19	90	25	9.045 705
33	118	25	9.045 706
26	60	25	9.045 707
30	80	25	9.045 708
25	100	25	9.045 709
43	123	25	9.045 710
28	80	25	9.045 711



6. Distillation, Separation, Filtration

Filtration/Syringe filters

LLG Syringe filters

We 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

1



1 LLG-Syringe Filters, CA, non sterile

Pore size µm	Diam. 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

2



2 LLG-Syringe Filters, CA, sterile

Pore size µm	Diam. 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

3



3 LLG-Syringe Filters, nylon, non sterile

Pore size µm	Diam. 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

4



4 LLG-Syringe Filters, RC, non sterile

Pore size µm	Diam. 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

5



5 LLG-Syringe Filters, PE, non sterile

Pore size µm	Diam. 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

7. Heating and cooling technology

Cooling/Cryogenic tubes-Cryogenic boxes

1 LLG-Cryotubes, PP, sterile

PP. External or internal screw thread. Temperature resistant down to -196°C. DNase/RNase free. With marking area, fill line and graduations printed on the vial. Autoclavable at 121°C.

Capacity	Ext. diam.	Height	Description	PK	Cat. No.
ml	mm	mm			
1.2	14.2	41.5	external thread, self-standing	100	9.401 060
1.2	12.3	42.4	internal thread, self-standing	100	9.401 061
2.0	14.2	48.0	external thread, self-standing	100	9.401 062
2.0	12.3	49.0	internal thread, self-standing	100	9.401 063
2.0	14.2	46.5	external thread	100	9.401 064
2.0	12.3	48.0	internal thread	100	9.401 065
5.0	14.2	88.9	external thread, self-standing	100	9.401 066
5.0	12.3	91.9	internal thread	100	9.401 067
5.0	12.3	91.0	internal thread, self-standing	100	9.401 068

Fits in 10 x 10 Cryobox System 100™ 5026, Order No: 9.400 927



2 LLG-Cryogenic storage boxes, standard, 136 x 136

Freezer and cryogenic storage boxes (CryoBoxes).

136 x 136mm square.

For the storage of samples. Made of freezing-resistant, water-repellent, coated cardboard. With lid. Colours as indicated.



Int. height mm	Colour	PK	Cat. No.
32	white	1	6.088 950
32	yellow	1	6.802 292
32	blue	1	6.802 293
32	red	1	6.260 000
32	green	1	6.260 001
50	white	1	9.401 000
50	yellow	1	9.401 002
50	blue	1	9.401 004
50	green	1	9.401 013
50	red	1	9.401 015
75	white	1	9.401 030
75	yellow	1	9.401 032
75	blue	1	9.401 034
75	green	1	9.401 036
75	red	1	9.401 038
100	white	1	9.401 040
100	yellow	1	9.401 042
100	blue	1	9.401 044
100	green	1	9.401 046
100	red	1	9.401 048
130	white	1	6.057 279
130	red	1	6.201 070
130	green	1	6.260 002
130	yellow	1	6.260 003
130	blue	1	6.228 311

7. Heating and cooling technology

Cooling/Cryogenic boxes, racks



1 LLG-Cryogenic storage boxes, plastic coated, 136 x 136

Freezer and cryogenic storage boxes (CryoBoxes). Made of cardboard, **plastic coated** without divider. Dimensions: 136 x 136mm square. For the storage of samples. With lid.

Int. height mm	Colour	PK	Cat. No.
32	white	1	6.802 214
32	yellow	1	6.231 450
32	red	1	6.231 451
32	blue	1	6.260 004
32	green	1	6.260 005
50	white	1	6.080 130
50	yellow	1	6.077 876
50	blue	1	6.077 875
50	green	1	6.081 021
50	red	1	6.081 022
75	white	1	6.802 726
75	blue	1	6.260 006
75	red	1	6.260 007
75	green	1	6.260 008
75	yellow	1	6.260 009
100	white	1	6.090 388
100	blue	1	6.260 010
100	red	1	6.260 011
100	green	1	6.260 012
100	yellow	1	6.260 013
130	blue	1	6.260 014
130	red	1	6.801 788
130	white	1	6.083 519
130	green	1	6.801 787



2 LLG-Partition inserts for Cryoboxes, 136 x 136

For cryoboxes 136 x 136mm. With compartment heights and formats as indicated.

Height mm	Compartment	PK	Cat. No.
25	6 x 6	1	6.260 015
25	7 x 7	1	6.089 965
25	8 x 8	1	6.202 838
25	9 x 9	1	6.802 057
25	10 x 10	1	6.054 191
25	12 x 12	1	6.050 586
25	13 x 13	1	6.050 585
25	14 x 14	1	6.050 333
30	4 x 4	1	6.305 840
30	5 x 5	1	9.401 055
30	6 x 6	1	6.090 419
30	7 x 7	1	9.401 054
30	8 x 8	1	9.401 053
30	9 x 9	1	9.401 052
30	10 x 10	1	9.401 051
30	12 x 12	1	9.401 050
30	13 x 13	1	6.260 017
30	14 x 14	1	6.260 016
40	4 x 4	1	6.401 505
40	5 x 5	1	6.260 020
40	6 x 6	1	6.202 839
40	7 x 7	1	6.802 215
40	8 x 8	1	6.900 361
40	9 x 9	1	7.510 691
40	10 x 10	1	6.077 877
65	4 x 4	1	6.510 301
65	5 x 5	1	6.079 677
65	6 x 6	1	6.201 071
65	8 x 8	1	6.801 789
65	9 x 9	1	6.072 218
65	10 x 10	1	6.802 727
65	12 x 12	1	6.803 270
40	13 x 13	1	6.260 018
40	12 x 12	1	6.260 019

7. Heating and cooling technology

Cooling/Cryogenic boxes, racks

1 LLG-Cryogenic storage boxes, standard, 133 x 133

Freezer and cryogenic storage boxes (CryoBoxes). Cardboard. Without internal dividers. Colour-coded, with lid. Dimensions: 133 x 133mm. For the storage of samples.

Int. height mm	Colour	PK	Cat. No.
32	white	1	6.235 243
50	yellow	1	6.079 785
50	blue	1	6.079 786
50	green	1	6.079 787
50	red	1	6.079 788
50	white	1	6.090 495
75	white	1	6.087 345
75	blue	1	6.260 021
75	red	1	6.260 022
75	green	1	6.260 023
75	yellow	1	6.260 024
100	blue	1	6.260 025
100	red	1	6.260 026
100	green	1	6.260 027
100	red	1	6.260 028
100	white	1	6.082 970
130	white	1	6.803 050
130	red	1	6.206 128

Special sizes and colours available on request!



2 LLG-Cryogenic storage boxes, plastic coated, 133 x 133

Freezer and cryogenic storage boxes (CryoBoxes). Made of cardboard, **plastic coated**. Without divider. Dimensions: 133 x 133mm square. For the storage of samples. With lid.

Int. height mm	Colour	PK	Cat. No.
32	white	1	6.260 029
32	red	1	6.234 735
32	yellow	1	6.234 736
32	green	1	6.801 699
32	blue	1	6.802 431
50	red	1	6.081 654
50	white	1	6.082 701
50	green	1	6.084 538
50	blue	1	6.700 568
75	red	1	6.260 030
75	yellow	1	6.260 031
75	white	1	6.801 707
75	green	1	6.803 056
100	white	1	6.260 032
130	white	1	6.260 033

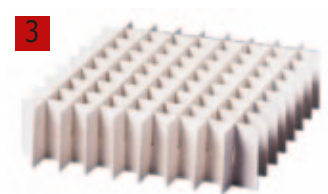
Special sizes and colours available on request!



3 LLG-Partition inserts for Cryoboxes, 133 x 133

For cryoboxes 133 x 133mm. With compartment heights and formats as indicated.

Height mm	Compartment	PK	Cat. No.
25	7 x 7	1	7.072 367
25	8 x 8	1	6.260 034
25	9 x 9	1	6.078 412
25	10 x 10	1	6.081 029
25	12 x 12	1	7.610 545
30	4 x 4	1	6.260 038
30	5 x 5	1	7.606 811
30	6 x 6	1	6.260 037
30	7 x 7	1	6.260 036
30	8 x 8	1	6.082 702
30	9 x 9	1	6.081 879
30	10 x 10	1	6.075 820
30	12 x 12	1	6.260 035
40	4 x 4	1	7.610 014
40	5 x 5	1	6.260 044
40	6 x 6	1	6.260 043
40	7 x 7	1	6.260 042
40	8 x 8	1	6.803 043
40	9 x 9	1	6.260 041
40	10 x 10	1	6.260 040
40	14 x 14	1	6.260 039
65	4 x 4	1	6.079 079
65	5 x 5	1	6.260 046
65	6 x 6	1	6.206 129
65	7 x 7	1	6.260 045
65	8 x 8	1	6.206 130
65	9 x 9	1	6.206 131



7. Heating and cooling technology

Cooling/Cryogenic boxes, racks



1 LLG-Cryogenic storage boxes, standard, 136 x 136

Freezer and cryogenic storage boxes (CryoBoxes). 136 x 136mm square.
For the storage of samples. Made of cardboard. **With lid and divider.**

Height	Length	Width	Colour	Array	PK	Cat. No.
mm	mm	mm				
25	136	136	white	16 x 16	1	6.260 047
25	136	136	blue	16 x 16	1	6.260 048
25	136	136	red	16 x 16	1	6.260 049
25	136	136	green	16 x 16	1	6.260 050
25	136	136	yellow	16 x 16	1	6.260 051
32	136	136	white	13 x 13	1	6.260 055
32	136	136	blue	13 x 13	1	6.260 056
32	136	136	green	13 x 13	1	6.260 057
50	136	136	white	10 x 10	1	6.260 061
50	136	136	blue	10 x 10	1	6.260 062
50	136	136	green	10 x 10	1	6.260 063
50	140	140	white	10 x 10	1	6.260 067
128	122	122	white	5 x 5	1	6.260 075
128	122	122	white	3 x 3	1	6.260 077
128	148	148	white	6 x 6	1	6.260 081
128	122	240	white	5 x 10	1	6.260 083
128	122	240	white	3 x 6	1	6.260 085
128	148	291	white	6 x 12	1	6.260 087
128	148	240	white	4 x 8	1	6.260 089



2 LLG-Cryogenic storage boxes, plastic coated, 136 x 136

Freezer and cryogenic storage boxes (CryoBoxes). 136 x 136mm square.
For the storage of samples. Made of cardboard, **plastic coated**. **With lid and divider.**

Height	Length	Width	Colour	Array	PK	Cat. No.
mm	mm	mm				
25	136	136	white	16 x 16	1	6.260 052
25	136	136	blue	16 x 16	1	6.260 053
25	136	136	green	16 x 16	1	6.260 054
32	136	136	white	13 x 13	1	6.260 058
32	136	136	blue	13 x 13	1	6.260 059
32	136	136	green	13 x 13	1	6.260 060
50	136	136	white	10 x 10	1	6.260 064
50	136	136	blue	10 x 10	1	6.260 065
50	136	136	green	10 x 10	1	6.260 066
50	140	140	white	10 x 10	1	6.260 068
50	140	140	red	10 x 10	1	6.260 069
50	140	140	green	10 x 10	1	6.260 070
50	136	268	white	10 x 20	1	6.260 071
50	136	268	blue	10 x 20	1	6.260 072
50	136	268	red	10 x 20	1	6.260 073
50	136	268	green	10 x 20	1	6.260 074
128	122	122	white	5 x 5	1	6.260 076
128	122	122	white	3 x 3	1	6.260 078
128	148	148	white	6 x 6	1	6.260 080
128	148	148	white	4 x 4	1	6.260 082
128	122	240	white	5 x 10	1	6.260 084
128	122	240	white	3 x 6	1	6.260 086
128	148	291	white	6 x 12	1	6.260 088
128	148	291	white	4 x 8	1	6.260 090

Special sizes and colours available on request!



3 LLG-Insert cap disks for cryotubes, PP

Colour-coded cryovial cap inserts

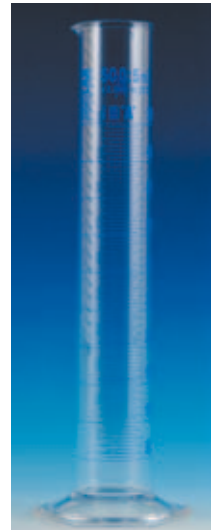
Colour	PK	Cat. No.
blue	1000	9.401 070
white	1000	9.401 071
yellow	1000	9.401 072
pink	1000	9.401 073
red	1000	9.401 074
green	1000	9.401 075

1 Measuring cylinders, class A, blue graduated

Borosilicate glass 3.3
Conformity certified with batch ID. To DIN EN ISO 4788, DIN 12680.
High form, hexagonal foot with spout.

Capacity	Tolerance	Height	PK	Cat. No.
ml	± ml	mm		
5	0.050	115	1	9.274 170
10	0.100	135	1	9.274 171
25	0.250	160	1	9.274 172
50	0.500	195	1	9.274 173
100	0.500	240	1	9.274 174
250	1.000	320	1	9.274 175
500	2.500	380	1	9.274 176
1000	5.000	465	1	9.274 177
2000	10.000	565	1	9.274 178

1



2 Measuring cylinders, class A, blue

Borosilicate glass 3.3 High form. Conformity certified, with certified batch number. HDPE stoppers and hexagonal foot.
To DIN EN ISO 4788, DIN 12680.

Capacity	Tolerance	Height	PK	Cat. No.
ml	± ml	mm		
10	0.100	135	1	9.275 070
25	0.250	160	1	9.275 071
50	0.500	195	1	9.275 072
100	0.500	240	1	9.275 073
250	1.000	320	1	9.275 074
500	2.500	380	1	9.275 075
1000	5.000	465	1	9.275 076

2



3 Graduated cylinders, class B, blue graduated, PP

With hexagonal foot and spout. Autoclavable.

Capacity	Tolerance	Height	PK	Cat. No.
ml	± ml	mm		
10	0.100	135	1	9.274 080
25	0.250	160	1	9.274 081
50	0.500	195	1	9.274 082
100	0.500	240	1	9.274 083
250	1.000	320	1	9.274 084
500	2.500	380	1	9.274 085
1000	5.000	465	1	9.274 086

3



4 Measuring cylinders, class B, blue graduations, PP

Tall form, with spout. Highly transparent. With moulded blue graduations. Ring marks at the major graduation points.
With spout and hexagonal foot, calibrated to contain (In). Tolerances of class B acc. to DIN 12681/ ISO 6706.
The measuring cylinders withstand exposure to temperatures up to 60°C without permanent loss of tolerance.
Recommended cleaning temperature: up to 60°C to preserve the printing on the flasks. Food-safe.

Capacity	Grad.	Height	Tolerance	Diam.	PK	Cat. No.
ml	ml	mm	± ml	mm		
10	0.20	145	0.2	15	1	9.274 408
25	0.50	170	0.5	22	1	9.274 409
50	1.00	200	1.0	27	1	9.274 410
100	1.00	250	1.0	33	1	9.274 411
250	2.00	315	2.0	44	1	9.274 412
500	5.00	360	5.0	58	1	9.274 413
1000	10.00	440	10.0	69	1	9.274 414
2000	20.00	482	20.0	97	1	9.274 415

4



8. Liquid Handling

Volumetric apparatus/Volumetric cylinders-Graduated flasks

Measuring cylinders, PP, class B, moulded graduations

High form. Highly transparent. With moulded blue graduations.
Ring marks at the major graduation points. Tolerances of class B acc. to DIN 12681/ ISO 6706.
The measuring cylinders withstand exposure to temperatures up to 60°C without permanent loss of tolerance.

1 Measuring cylinders, with spout, PP, class B, tall form

Tall form. Food-Safe.

Capacity	Grad.	Height	Tolerance	Diam.	PK	Cat. No.
ml	ml	mm	± ml	mm		
10	0.20	145	0.2	15	1	7.075 031
25	0.50	170	0.5	22	1	9.274 420
50	1.00	200	1.0	27	1	9.274 428
100	1.00	250	1.0	33	1	9.274 438
250	2.00	315	2.0	44	1	9.274 448
500	5.00	360	5.0	58	1	9.274 454
1000	10.00	440	10.0	69	1	9.274 462
2000	20.00	482	20.0	97	1	9.274 464

2 Measuring cylinders, PP, class B, moulded graduations, low form

Low form. Food-safe.

Capacity	Grad.	Height	Tolerance	Diam.	PK	Cat. No.
ml	ml	mm	± ml	mm		
25	0.50	122	0.50	22	1	9.274 820
50	1.00	142	1.00	27	1	9.274 828
100	2.00	163	2.00	37	1	9.274 838
250	5.00	192	5.00	51	1	9.274 848
500	10.00	218	10.00	67	1	9.274 854
1000	20.00	285	20.00	78	1	9.274 862



3 Volumetric flasks, class A, blue graduated

Borosilicate glass 3.3
Conformity certified, with batch certificate.
With NS and HDPE stoppers, to DIN 12664, to DIN EN ISO 1042.

Capacity	NS	Tolerance	PK	Cat. No.
ml		± ml		
5	10/19	0.025	1	9.276 600
10	10/19	0.025	1	9.276 601
20	10/19	0.040	1	9.276 602
25	10/19	0.040	1	9.276 603
50	12/21	0.060	1	9.276 604
50	14/23	0.060	1	9.276 605
100	12/21	0.100	1	9.276 606
100	14/23	0.100	1	9.276 607
200	14/23	0.150	1	9.276 608
250	14/23	0.150	1	9.276 609
500	19/26	0.250	1	9.276 610
1000	24/29	0.400	1	9.276 611
2000	29/32	0.600	1	9.276 612
5000	34/35	1.200	1	9.276 613
10000	45/40	2.000	1	9.276 614

1 Volumetric flasks, plastic, class B

To DIN EN ISO 1042, with individually adjusted, blue printed graduation and inscriptions, with PP standard ground joint stoppers. Autoclavable.

Capacity ml	Tolerance ± ml	NS	PK	Cat. No.
25	0.08	10/19	1	9.276 590
50	0.12	12/21	1	9.276 591
100	0.20	12/21	1	9.276 592
250	0.30	14/23	1	9.276 593
500	0.50	19/26	1	9.276 594
1000	0.60	24/29	1	9.276 595



2 Volumetric pipettes, soda glass, class AS

Soda glass. Conformity-certified. With batch date identification. DIN EN ISO 648, DIN 12691 and BS 700 - 1583. Calibrated to deliver (Ex). Ring mark and inscriptions in permanent blue enamel.

Capacity ml	Tolerance ± ml	Length mm	PK	Cat. No.
1	0.007	310	1	9.272 260
2	0.010	330	1	9.272 261
3	0.010	360	1	9.272 262
4	0.015	360	1	9.272 263
5	0.015	400	1	9.272 264
10	0.020	440	1	9.272 265
15	0.030	455	1	9.272 267
20	0.030	510	1	9.272 268
25	0.030	520	1	9.272 269
50	0.050	540	1	9.272 270



3 Graduated pipettes, soda glass, class AS, type 3

Soda glass. Conformity-certified. With batch date identification. DIN EN ISO 835, DIN 12697 and BS700 - 1583. Calibrated to deliver (Ex). Ring marks and graduations in permanent blue enamel.

Capacity ml	Graduations ml	Tolerance ± ml	Length mm	PK	Cat. No.
1	0.01	0.007	360	1	9.272 250
2	0.02	0.010	360	1	9.272 251
5	0.05	0.030	360	1	9.272 252
10	0.1	0.050	360	1	9.272 253
20	0.1	0.100	450	1	9.272 254
25	0.1	0.100	450	1	9.272 255
50	0.1	0.200	720	1	9.272 256



4 LLG-Pasteur pipettes, glass

Single use. With uniform shape and length. With long drawn, 1.1mm diameter fine tip, 20mm suction tube and constriction for tight fitting of cotton wool plugs. External diameter: 7.1mm.

Length mm	PK	Cat. No.
150	1000	9.411 015
230	1000	9.411 020



8. Liquid Handling

Pipettes/Graduated pipettes



1 Pipette teats

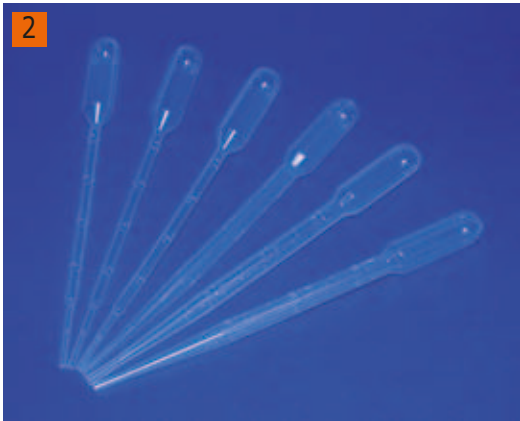
Choice of materials as indicated.

Type	PK	Cat. No.
Natural rubber/Latex (NR)	1	9.072 681
Silicone (VMQ)	10	9.072 682
Red (NR/SBR)	1	9.072 683

LLG-Pasteur Pipettes disposable, PE

Manufactured from transparent PE. Sterile or non-sterile. Graduated.

Type	Capacity ml	Length mm	PK	Cat. No.
Pasteur pipettes, macro, graduated, non-sterile	3.0	150	500	9.401 080
Pasteur pipettes, macro, graduated, non-sterile	1.0	150	500	9.401 081
Pasteur pipettes, macro, graduated, sterile, single wrapped	3.0	150	1000	9.401 084
Pasteur pipettes, macro, graduated, sterile, single wrapped	1.0	150	1000	9.401 085



9.401 080



1 2 3 LLG-Serological pipettes, PS, sterile

- Graduations for accurate dispensing up to $\pm 2\%$
- Colour coding for easy volume identification
- Pyrogen-free
- Sterile, individually packed

Capacity	Grad.	Colour	PK	Cat. No.
ml	ml			
1	1/100	yellow	500	9.380 440
2	1/50	green	500	9.380 441
5	1/10	blue	200	7.930 401
10	1/10	orange	200	7.930 402
10	1/10	orange (short form)	200	9.380 442
25	2/10	red	150	7.930 403
50	5/10	purple	100	9.380 443



4 5 Pipettes, plastic, disposable, serological

These serological pipettes were specially designed for cell culture. The special colour-coded system makes it easy to identify the size of the pipette in use. The pipettes are made from high-grade polystyrene and have the following features:

- Guaranteed sterile (gamma irradiated)
- Guaranteed non-pyrogenic
- Guaranteed non-cytotoxic
- Guaranteed non-haemolytic
- Cotton plugged and colour coded
- Larger capacity through extra graduations
- 5ml, 10ml and 25ml pipettes are graduated with bi-directional secondary scale, enabling easier reading.
- Secure and easy-to-open 'tear off' packaging.

Capacity	Colour	Grad.	Negative graduations up to	PK	Cat. No.
ml		ml			
1	Yellow	1/100	0.3ml	500	9.380 431
2	Green	1/50	0.4ml	500	9.380 432
5	Blue	1/10	3.0ml	250	9.380 433
10	Orange	1/10	3.0ml	200	9.380 434
25	Red	1/5	10.0ml	100	9.380 435
50	Purple	1/5	0.5ml	50	6.229 297



6 Safety bulb pipette fillers, rubber

Chemically resistant rubber. With valves for suction, emptying and air release, controlled by thumb and finger pressure.

Type	Fig.	PK	Cat. No.
Standard, for pipettes up to 8mm diameter	1	1	9.273 836
Universal, for most pipettes	2	1	9.273 837



8. Liquid Handling

Pipettes/Pipette controllers-Pipetting accessories



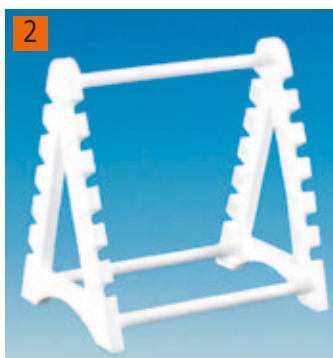
1 LLG-Electrical pipette pump

The LLG-Electrical pipette pump combines a powerful motor with a lightweight, ergonomic design; a reflection of our commitment to the comfort of the end user. Features such as textured grip, hand-neutral design for right and left-handed users, concave triggers, and convenient controls ensure the filler provides many hours of stress-free filling and dispensing. Filling and dispensing speed is easily set with a single switch. Force liquid out of your pipette by setting the unit to low or high-speed blow-out mode, or flip to gravity mode for use with "to contain" pipettes and dispense liquid without the motor. Filler accommodates glass and plastic pipettes ranging in volume from 1ml to 100ml. The filter in the polypropylene nozzle prevents contamination. A red low-battery indicator signals when the batteries need to be recharged. Filler can be recharged while in use, or while resting in either the dual-position desktop or magnetic wallmountable holder (both included). Includes two replacement 0.45µm filters. Weight: ca. 200g.

Supplied with:

Power supply 220/230 VAC, 2 NiMH rechargeable batteries (1.2 V), 2 spare membrane filters (PTFE 0.45µm), stand, wall mounting.

Description	PK	Cat. No.
LLG-Electrical pipette pump, incl. holder	1	9.281 040
Membrane filter, 0.45 µm, PTFE, non-sterile	5	9.281 005



2 Pipette stand, horizontal

Pipette stand, horizontal is made from moulded polypropylene which is autoclavable. On each side, 6 pipettes (longer than 22cm) can be stored horizontally. Easy to clean.

Dimensions mm	PK	Cat. No.
240 x 180 x 290	1	9.273 896



3 Pipette stand "vertical"

Pipette stand, vertical is made from moulded polypropylene. This stand can hold up to 94 pipettes and rotates on a central vertical axis for easy selection of any particular pipette. The base plate has a raised edge which catches dripping liquids.

Type	PK	Cat. No.
Pipette stand "vertical"	1	9.273 895

1 LLG-Digital Microlitre pipettors

Comfortable to use

Minimal effort is required for pipetting which reduces the risk of repetitive strain injuries (RSI). Volume setting is easy and precise, using the push button, even when wearing gloves. With integrated soft grip.

Maximum Precision and Accuracy

Thermal insulation of the internal components, using the innovative, ergonomic, coloured soft grip, improves accuracy and ensures safe, easy handling.

Universal Blow-out System

Two step plunger operation allows reverse pipetting. This also facilitates last drop dispensing by soft plunger movements. High accuracy and precision are guaranteed.

Easy Maintenance and Adjustment

Easy to adjust, with just one tool. Maintenance and adjustment take only a few minutes. The pipettor design and the universal tool are a perfect partnership for simple, rapid adjustment.

Contamination-free Pipetting

The pipettor is fully autoclavable, ideal for applications where sterility is important.

Satisfaction Guaranteed

Each pipette is individually tested and calibrated twice, conforming to EN ISO 8655 and DIN 12650 Standards. A certificate is included.

Made in Germany, CE certified.

Capacity	Accuracy $\leq \pm A\%$ (max. vol.)	Reproducibility $\leq \pm V\%$ (max. vol.)	PK	Cat. No.
μl				
0.1 to 2.5	1.5	0.8	1	9.280 000
0.5 to 10	1.0	0.5	1	9.280 001
2 to 20	1.0	0.3	1	9.280 002
10 to 100*	0.8	0.2	1	9.280 003
20 to 200	0.6	0.2	1	9.280 004
100 to 1000*	0.6	0.2	1	9.280 005
500 to 5000*	0.6	0.15	1	9.280 006
1000 to 10000**	0.6	0.15	1	9.280 007

*Filters for pipettors available on request.

** 10000 μl Pipettor does not have a tip ejector

1



2 LLG-Racks for Microlitre pipettors, PMMA

White, stable plastic (PMMA), industrial grade. Pipettors are held in an ergonomic position for easy withdrawal and replacement. Adjustable heights. Suitable for all kind of pipettors.

Description	PK	Cat. No.
for 4 pipettors	1	9.280 010
for 6 pipettors	1	9.280 011

2



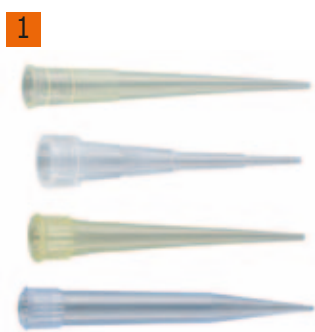
8. Liquid Handling

Pipettes/Pipette tips

LLG-Pipette tips for digital Microlitre pipettors

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free.
CE-certified for In-Vitro-Diagnostics acc. to 98/79/EG. Sterility acc. EN 552/ISO 11137 and DIN EN 556.

LLG universal fit tips are engineered for a wide variety of pipettors and are ideal for laboratories with multiple brands of pipettors, even multi-channel pipettors. Our universal tips feature the universal grip design, using flexible materials with a series of bands and supports producing a positive seal. LLG tips have thin walls and a small surface area at the tip, greatly minimising the possibility of the tip retaining sample droplets. In addition the small surface area reduces the touch-off angle between the outer tip wall and the receiving sample tube. This reduced touch-off angle virtually eliminates the potential of capillary retention between the tip orifice and tube wall. Each of our tips is molded to give a flash-free and uniform delivery orifice for consistent accuracy and reproducible sample delivery. All our tips are provided with calibration lines at specific volumes, acting as visual checks to minimise any risk of errors during sample aspiration.



1 LLG-Pipette tips "economy" for digital microlitre pipettors

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free. CE-certified for In-Vitro-Diagnostics acc. to 98/79/EG. Sterility acc. EN 552/ISO 11137 and DIN EN 556.

LLG universal fit tips are engineered for a wide variety of pipettors and are ideal for laboratories with multiple brands of pipettors, even multi-channel pipettors. Our universal tips feature the universal grip design, using flexible materials with a series of bands and supports producing a positive seal. LLG tips have thin walls and a small surface area at the tip, greatly minimizing the possibility of the tip retaining sample droplets. In addition the small surface area reduces the touch-off angle between the outer tip wall and the receiving sample tube. This reduced touch-off angle virtually eliminates the potential of capillary retention between the tip orifice and tube wall. Each of our tips is molded to give a flash-free and uniform delivery orifice for consistent accuracy and reproducible sample delivery. All our tips are provided with calibration lines at specific volumes, acting as visual checks to minimize any risk of errors during sample aspiration.

Capacity µl	Colour	Type	PK	Cat. No.
0.1 to 10	clear	1 bag of 1000	1000	9.409 099
0.1 to 10	clear	10 racks of 96	960	9.409 045
1 to 200	yellow	1 bag of 1000	1000	9.409 046
1 to 200	yellow	10 racks of 96	960	9.409 047
100 to 1000	blue	1 bag of 1000	1000	9.409 048
100 to 1000	blue	10 racks of 96	960	9.409 049
100 to 5000	clear	1 bag of 250	250	9.409 097
1000 to 10000	clear	1 bag of 1000	100	9.409 098



2 LLG-Low-Retention Pipette tips for digital Microlitre pipettors

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free. CE-certified for In-Vitro-Diagnostics acc. to 98/79/EG. Sterility acc. EN 552/ISO 11137 and DIN EN 556.

Sample retention can be a major contributor to pipetting inaccuracy, and siliconization of tips has proved unsatisfactory because of autoclaving and contamination problems. For LLG quality tips a new polymer, Novelle-Polypropylenehas been developed, that produces a "super slick surface" on our new ULR-tips, that actually improves with autoclaving and cannot leach from the tip surface. On average, Novelle Polymer and LLG ULR-tips reduces the tip retention by near 85% and decreases the standard deviation of the retained volume by more than 75%. Also liquid handling accuracy and precision are crucial to success in today's molecular biology laboratories, especially for DNA analysis and protein handling. A significant culprit of pipette inaccuracy is binding of sample. The LLG ULR-tips reduces the binding, thus increasing sample delivery accuracy. Tests demonstrates that LLG ULR-Tips significantly reduces the amount of DNA and protein bound by the tip. Furthermore LLG ULR-Tips offer a marked improvement over the best low retention technologies.

Capacity µl	Colour	Type	PK	Cat. No.
0.1 to 10	Clear	1 bag of 1000	1000	9.409 038
0.1 to 10	Clear	10 racks of 96	960	9.409 039
1 to 200	Clear	1 bag of 1000	1000	9.409 041
1 to 200	Clear	10 racks of 96	960	9.409 042
100 to 1000	Clear	1 bag of 1000	1000	9.409 043
100 to 1000	Clear	10 racks of 96	960	9.409 044

1 LLG-Low retention filter tips for digital Microlitre pipettors

Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free. CE-certified for In-Vitro-Diagnostics acc. to 98/79/EG. Sterility acc. EN 552/ISO 11137 and DIN EN 556.

Sterile. Filter pore size (effective) 4 to 6µm.

Also liquid handling accuracy and precision are crucial to success in today's molecular biology laboratories, especially for DNA analysis and protein handling. A significant culprit of pipette inaccuracy is binding of sample. The LLG ULR-tips reduces the binding, thus increasing sample delivery accuracy. Tests demonstrates that LLG ULR-Tips significantly reduces the amount of DNA and protein bound by the tip. Furthermore LLG ULR-Filter Tips offer a marked improvement over the best low retention technologies.



Capacity µl	Colour	Type	PK	Cat. No.
0.1 to 100	Clear	10 racks of 96	960	9.409 033
1 to 20	Clear	10 racks of 96	960	9.409 034
1 to 100	Clear	10 racks of 96	960	9.409 035
1 to 200	Clear	10 racks of 96	960	9.409 036
100 to 1000	Clear	10 racks of 96	960	9.409 037

2 LLG-Bottletop dispenser

- Definitely the best choice to provide high precision with consistent delivery. Reliable measuring results with bubble-free dispensing.
- Individually calibrated in accordance with ISO 8655 standards and each unit is supplied with an individual calibration certificate.
- Highest degree of chemical resistance is provided due to the use of high quality materials in contact with dispensed liquids.
- Springless PTFE valve manifold ensures excellent chemical compatibility and leak proof valve functioning reproductibility.
- Specially designed PTFE piston with silicone O-ring ensures smooth, effortless piston movement.
- Dosing cylinder is protected against breaking by a polypropylene sleeve which prevents any glass splitting in case of any accidental breaking.
- The telescopic extractable intake tube can be adjusted easily and smoothly to the varying heights of the bottles.
- Nozzle cap reduces contact with air and prevents drying. No drips when the tip cover is attached.
- Each dispenser comes with five adaptors to fit in most of the laboratory reagent bottles.

Quick volume settings with the practical sets screw. After loosening the locking screw, desired volume can be set, then locking screw is fixed.



Capacity ml	Grad. ml	PK	Cat. No.
0.3 - 2.5	0.05	1	9.284 180
0.5 - 5	0.10	1	9.284 181
1.0 - 10	0.20	1	9.284 182
2.5 - 30	0.50	1	9.284 183
5.0 - 60	1.00	1	9.284 184
10.0 - 100	2.00	1	9.284 185



8. Liquid Handling

Titration/Burettes-Titrators



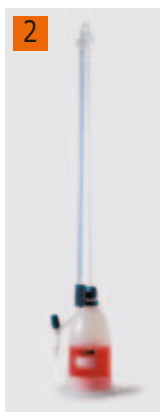
1 Burettes, with straight stopcock, class AS

Borosilicate glass 3.3

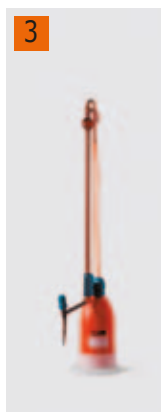
With class AS, conformity certified, with batch identification, blue graduations, DIN EN 385.

PTFE spindle.

Capacity	Grad.	Tolerance	Description	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.020	with Schellbach line	1	4.008 311
25	0.05	0.030	with Schellbach line	1	9.270 100
50	0.10	0.050	with Schellbach line	1	9.270 101
10	0.02	0.020	without Schellbach line	1	9.270 102
25	0.05	0.030	without Schellbach line	1	9.270 103
50	0.10	0.050	without Schellbach line	1	9.270 104



4.008 314



4.008 316

Automatic burettes, schilling pattern, borosilicate glass 3.3, PE-LD

- Described as automatic burettes with fast titration and practical usage.
- Especially suitable for field analysis where there is a risk of breaking.
- The entire system consists of a burette tubing with automatic zeroing system together with a valve stopcock, a reservoir bottle and a bottle stand.
- Rapid filling by squeezing the bottle and fast titration by valve stopcock
- Inscriptions and graduations are printed either with blue enamel or with white enamel which is specially designed for glass use.
- Clear burettes are manufactured with schellbach stripe.
- Amber burettes are manufactured without schellbach stripe.
- 10ml burette has a polyethylene reservoir bottle of 500ml volume whereas 25 and 50ml burettes are used with bottles of 1000ml volume.

Capacity	Grad.	Tolerance	Description	PK	Cat. No.
ml	ml	± ml			
10	0.02	0.020	clear glass, schellbach, blue graduated	1	4.008 314 2
25	0.05	0.030	clear glass, schellbach, blue graduated	1	6.241 904
50	0.10	0.050	clear glass, schellbach, blue graduated	1	4.008 315
10	0.02	0.020	amber, without schellbach, white graduated	1	4.008 316 3
25	0.05	0.030	amber, without schellbach, white graduated	1	4.008 317
50	0.10	0.050	amber, without schellbach, white graduated	1	4.008 318



4 Automatic burettes, borosilicate glass 3.3, class AS

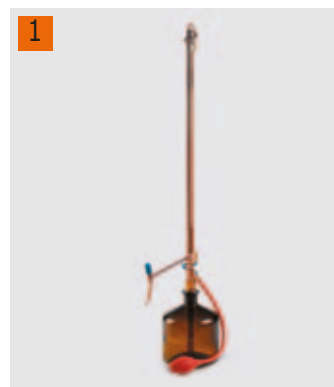
Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the residual liquid. Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink. Clear burettes are manufactured with schellbach stripe.

Capacity	Graduations	Tolerance	PK	Cat. No.
ml	ml	± ml		
10	0.02	0.020	1	4.008 312
25	0.05	0.030	1	6.241 216
50	0.10	0.050	1	6.237 627

1 Automatic burettes, borosilicate glass 3.3, class AS, amber

Supplied with an automatic zeroing system, VALVE stopcock and also an intermediate PTFE stopcock to recirculate the residual liquid. Inscriptions and graduations are printed either with blue enamel or amber stain diffusion ink. Clear burettes are manufactured with schellbach stripe.

Capacity	Graduations	Tolerance	PK	Cat. No.
ml	ml	± ml		
10	0.02	0.020	1	6.238 473
25	0.05	0.030	1	6.242 463
50	0.10	0.050	1	6.241 116



Bottle for automatic burettes, amber or clear glass

- Clear bottle for automatic burettes is made from heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette. Total volume capacity of the bottle is 2000ml.

- Amber bottle for automatic burettes is made from heat resistant glass. Each bottle has a NS 29/32 neck grinding that fits to burette. Total volume capacity of the bottle is 2000ml.

Description	PK	Cat. No.
Clear bottle	1	6.237 628
Amber bottle	1	6.238 474



6.237 628



6.238 474

4 Hand bellows

Burette bellow for automatic burettes is made out of best quality natural rubber.

Type	PK	Cat. No.
Burette bellow	1	6.237 629



9. Vacuum technology

Vacuum drying/Desiccators, accessories



1 Desiccators with plastic knob and porcelain plate

Desiccators borosilicate glass 3.3.

DN	Ext. diam. mm	Base diam. mm	PK	Cat. No.
100	151.0	90	1	9.042 810
150	210.0	140	1	9.042 811
200	269.0	190	1	6.230 515
250	329.0	240	1	9.042 812
300	392.0	290	1	6.225 773



2 Desiccators with plastic knob, stopcock and porcelain plate

Desiccators borosilicate glass 3.3.

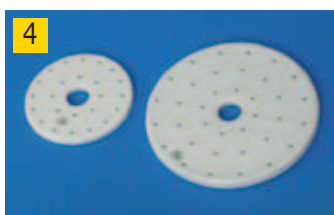
DN	Ext. diam. mm	Base diam. mm	PK	Cat. No.
100	151.0	90	1	9.042 813
150	210.0	140	1	6.226 990
200	269.0	190	1	6.226 989
250	329.0	240	1	6.228 442
300	392.0	290	1	9.042 814



3 Desiccators with tubes, stopcock SJ 24/29 and porcelain plate

Desiccators borosilicate glass 3.3.

DN	Ext. diam. mm	Base diam. mm	PK	Cat. No.
100	151.0	90	1	9.042 815
150	210.0	140	1	6.226 934
200	269.0	190	1	6.226 935
250	329.0	240	1	6.226 936
300	392.0	290	1	6.227 443



4 LLG Plate for desiccator, porcelain

DIN 12911

Diam. mm	PK	Cat. No.
90	1	9.042 801
140	1	9.042 802
190	1	9.042 803
235	1	9.042 804
280	1	9.042 805



5 LLG Desiccant beads

With orange indicator colour. Grain size 1 to 3mm. This self-indicating drying agent (white silica gel) is free from any heavy metals and therefore environmentally compatible. The gel is naturally orange when active and at a 6 weight-% saturation level. As the gel adsorbs moisture, the colour changes into white. The total adsorption capacity is approximately 23 in weight-% at 40% RH. The range of application is identical with that of white silica gel. The colour change, however, represents a great advantage since it allows monitoring of the saturation level. The gel can be regenerated when heated at a temperature of maximum 120°C until it turns to its original orange colour.

Container	Capacity kg	PK	Cat. No.
Box	1	1	9.042 555
Box	3	1	9.042 556
Bucket	8	1	9.042 557
Cardboard box	25	1	9.042 558

10. Optical instruments and Microscopes

Microscopes/Accessories

1 LLG-Microscope slides

Extra white glass, cut edges or ground edges. Dimensions: 76 x 26 x 1mm.

Description	Edge finish	PK	Cat. No.
Extra white	cut edges	50	9.160 800
Extra white, with frosted area	cut edges	50	9.160 801
Extra white, with frosted area	ground edges 90°	50	9.160 802
Extra white	ground edges 45°	50	9.160 803



2 LLG-Slides with label

According to ISO 8037/I. With colour-coded writing patch as outlined below. Size 76mm x 26mm. Nominal thickness 1.0mm. With cut or ground edges.

Edge finish	Colour	PK	Cat. No.
Cut	white	50	9.160 804
Cut	blue	50	9.160 805
Cut	pink	50	9.160 806
Cut	yellow	50	9.160 807
Cut	green	50	9.160 808
Cut	orange	50	9.160 809
Cut	violet	50	9.160 810
Ground 45°	white	50	9.160 811
Ground 45°	blue	50	9.160 812
Ground 45°	pink	50	9.160 813
Ground 45°	yellow	50	9.160 814
Ground 45°	green	50	9.160 815
Ground 45°	orange	50	9.160 816
Ground 45°	violet	50	9.160 817



3 LLG-Slides

With colour-coded writing patch as outlined below. Size 25mm x 75mm. Nominal thickness 1.0mm. With ground edges.

Edge finish	Colour	PK	Cat. No.
Ground 90°	white	72	9.160 818
Ground 45°	white	72	9.160 819



4 LLG-Slide dispenser

Slide dispenser can dispense 50 slides, individually. By turning the knob, one slide is dispensed. Only dry slides should be inserted into the storage magazine. With transparent, removable upper section for easy viewing of remaining slides and clean storage.

Type	PK	Cat. No.
Dispenser	1	9.161 000



5 LLG-Slide wallet

Cardboard. For 20 slides size 76mm x 26mm. With numbered positions, gatefold front cover and white backboard.

Dimensions mm	PK	Cat. No.
192 x 292 x 11	1	9.161 290



10. Optical instruments and Microscopes

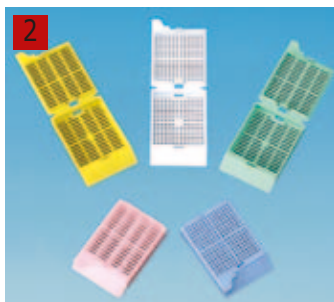
Microscopes/Accessories



1 LLG-Slide mailers

High density polypropylene. Very stable. Holds one, two or three standard slides (76mm x 26mm and 3 x 1") securely with large, easy to use snaps.

To hold microscope	PK	Cat. No.
slides		
1	10	9.161 291
2	10	9.161 292
3	10	9.161 293



2 LLG-Embedding cassettes with lid

Moulded from a special high density polymer, these cassettes keep specimens safely submerged in liquid and are totally resistant to the chemical action of histological solvents. The efficient, flow-through slots maximize fluid exchange and ensure proper drainage. Designed for one-handed operation. Large labelling areas are located on two sides of the cassettes.

Colour	For	PK	Cat. No.
White	Histology	500	9.163 261
Yellow	Histology	500	9.163 262
Green	Histology	500	9.163 263
Pink	Histology	500	9.163 264
Blue	Histology	500	9.163 265
White	Biopsy	500	9.163 266
White	Biopsy	500	9.163 267
Green	Biopsy	500	9.163 268
Pink	Biopsy	500	9.163 269
Blue	Biopsy	500	9.163 270



3 LLG-Embedding cassettes

Disposable plastic tissue cassettes are suitable for holding and identifying tissue samples in processing, embedding and sectioning procedures. The cassettes fit securely in microtome chuck adapters. Moulded from a high density polymer that is totally resistant to the chemical action of histological solvents. The slanted writing surface accepts markings easily, permitting sample identification. The separate cassette lid (9.170 046) is manufactured from high grade stainless steel. Perforated surface for optimal liquid diffusion.

Colour	PK	Cat. No.
White	500	9.170 041
Yellow	500	9.170 042
Green	500	9.170 043
Pink	500	9.170 044
Blue	500	9.170 045
Lid	5	9.170 046

10. Optical instruments and Microscopes

Microscopes/Accessories-Photometers/Cuvettes

1 LLG-Staining jars

The Schiefferdecker staining jar is suitable for holding 76mm x 26mm slides horizontally. This staining jar has 10 grooves which can accommodate 20 slides back-to-back.
 The Hellendahl staining jar is suitable for holding 76mm x 26mm slides vertically. This staining jar has 8 grooves which can accommodate 18 slides back-to-back.
 The "Macro" staining jar is manufactured from thick moulded glass (please order rack separately)
 This stainless steel rack for "Macro" has 20 grooves which can accommodate 20 single slides.
 Each staining jar is supplied with a glass lid.

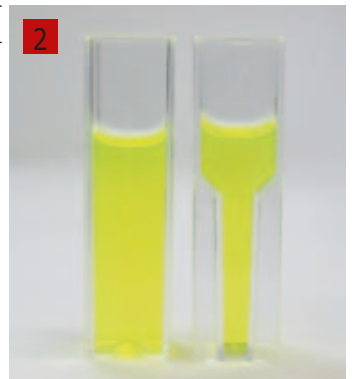


Type	PK	Cat. No.
Schiefferdecker staining jar	1	9.163 250
Hellendahl staining jar	1	9.163 251
Macro staining jar	1	9.163 252
Rack, stainless steel, for Macro jar	1	9.163 253

2 LLG-Disposable plastic cells

The new generation of cuvettes with clearly improved, photometric properties. The new optimized shape and narrow wall thickness of the cuvettes provides increased heat transfer resulting in more constant sample temperatures during photometric measurements.

- Cavity sorted
- Glass clear polystyrene (PS).
- Applicable wavelength range 340nm to 900nm
- Very low variation of extinction values
- Excellent optical transmission range
- Path length 10mm
- Overall dimensions 12.5mm x 12.5mm x 45mm
- Styrofoam racks: 100 cuvettes in a styrofoam box with a re-sealable cover



Description	Path length mm	Material	Operating range nm	PK	Cat. No.
Macro	10.0	PS	340 to 900	100	9.406 011
Semi-micro	10.0	PS	340 to 900	100	9.406 012



11. Cleaning and sterilisation

Disinfection/Surface and instrument disinfection



1 LLG-Dispenser bin Wiper Bowl® for Multitex® DR

Dispenser system for moist cloths.

The economical "building block solution" for thorough disinfection and cleaning of sensitive areas in the medical and foodstuff industries. The fine perforated structure of Multitex® moist cloths ensures an even distribution of the surface disinfectant. These moist towels are also ideally suited to the cleaning of grossly soiled surfaces.

Multitex® cloths are pleasant to handle because of their textile character, and are extremely tear-resistant, highly absorbent, and lint-free.

Wiper Bowl® Safe & Clean can be filled with all commercial disinfectant and cleaning agents.

Type	PK	Cat. No.
Dispenser bin for Multitex® DR	1	9.413 216



2 LLG-Cleaning tissues Multitex® DR

Viscose fleece for Wiper Bowl® Safe and Clean dispenser bucket.

White, for disinfection and cleaning, fine, tear-resistant, absorbent and lint free.

Dimensions: 300mm x 320mm.

1 roll of 90 tissues

Colour	PK	Cat. No.
white	1	9.413 215

deconex® - Next generation cleaners

NTA-free

- Takes R 40 reclassification for NTA into account
- Free from critical ingredients
- Cleaners available for considerable time

Phosphate-free

- Low environmental impact
- Reduced workload for sewage treatment plant
- Avoids critical ingredients

Chlorine-free

- Chlorine residue causes corrosion if not rinsed off properly
- No chlorine vapours, e.g. when opening the dishwasher
- Safer to use



3 Cleaning concentrate, deconex® 12 PA-x

Liquid, mildly alkaline concentrate for manual cleaning of laboratory glassware. Versatile use. Active against stubborn residues due to excellent emulsifying and dispersing capabilities. Suitable for soaking and in ultrasonic baths. NTA-free.

Capacity L	PK	Cat. No.
1.30	1	9.192 948
7.00	1	9.192 949
14.00	1	9.192 950
35.00	1	9.192 951



4 Cleaner, deconex® 15 PF-x, liquid, phosphate free

Alkaline cleaning concentrate. Specifically designed for phosphate critical applications. Very stable, long shelf life and low COD value. For manual washing. NTA free.

Capacity L	PK	Cat. No.
1.00	1	9.192 892
5.00	1	9.192 893
10.00	1	9.192 894
28.00	1	9.192 895

11. Cleaning and sterilisation

Disinfection/Instrument disinfection-Cleaning implements/Wipes, cloths

1 Cleaners, deconex® 22 LIQ-x/22 PF

Alkaline cleaners. Particularly suitable for stainless steel and glass instruments.
Phosphate and surfactant free. NTA-free.

Weight kg	Type	PK	Cat. No.
6.0	22 LIQ-x, liquid	1	6.238 630
12.0	22 LIQ-x, liquid	1	9.192 946
30.0	22 LIQ-x, liquid	1	9.192 947
10.0	22, PF, powder	1	9.192 907

1



2 Cleaning concentrate, deconex® 22 HPF-x

Highly alkaline, special cleaner for analytically pure reprocessing of laboratory glassware. Phosphate and surfactant free, with enhanced performance against stubborn residues.

Capacity L	PK	Cat. No.
6.00	1	9.192 897
12.00	1	9.192 898
30.00	1	9.192 899

2



Cleaning concentrate, deconex® 24 LIQ/24 FORTE

Highly alkaline cleaner with active chlorine. Particularly suitable for the removal of stubborn stains on glass. Surfactant free.

Capacity L	Type	PK	Cat. No.
7.00	24 LIQ, liquid	1	9.192 932
14.00	24 LIQ, liquid	1	9.192 908
35.00	24 LIQ, liquid	1	9.192 909
10.00	24 FORTE, powder	1	9.192 910

3 Cleaning concentrate, deconex® 25 ORGANACID

Liquid, phosphate free. For neutralising carry-over alkaline residue. Specially suitable for glassware, aluminium and sensitive materials. Surfactant free.

Capacity L	PK	Cat. No.
5.00	1	9.192 911
10.00	1	9.192 912
25.00	1	9.192 913

3



4 Cleaning concentrate, deconex® 26 MINERALACID/PLUS

For neutralising carry-over alkaline residue. Used in combination with all alkaline and highly alkaline deconex® cleaning concentrates. Ideally suitable for chromium steel parts. Surfactant free.

Capacity L	Type	PK	Cat. No.
5.00	26 MINERALACID, liquid	1	9.192 914
10.00	26 MINERALACID, liquid	1	9.192 915
25.00	26 MINERALACID, liquid	1	9.192 916
7.00	26 PLUS, liquid	1	9.192 917
12.00	26 PLUS, liquid	1	9.192 918
35.00	26 PLUS, liquid	1	9.192 919

4



5 LLG-Laboratory wipes, 2-ply

Laboratory and hygienic tissues
- contains 150 white, double-ply tissues, 210mm x 220mm
- highly absorbent and ultra soft
- for sensitive application areas

Pack size	PK	Cat. No.
Box with 30 x 150 wipes	30	9.413 220

5



11. Cleaning and sterilisation

Cleaning implements/Wipes, cloths-Brushes

1



1 LLG-Laboratory tissues, roll , 120 sheets 3-ply

Roll with 120 sheets (220 x 260mm).

- Wet-resistant
- Absorbent
- Low lint

Type	PK	Cat. No.
Roll with 120 sheets	2	9.413 221
Roll with 120 sheets	18	9.413 222

2



2 LLG-Cellulose wad

- Cellulose wad in stacking tier
- Unbleached or high bleached
- Dimensions: 400mm x 600mm
- Pack quantity: 1 x 5kg

Type	PK	Cat. No.
unbleached	1	9.413 210
high bleached	1	9.413 211

Brushes, natural bristle

Type	Diam. mm	Length mm	PK	Cat. No.
Pipette brush	5	480	1	9.019 010 3
Brush for tip with wool tip	10	190	1	9.019 020
Reagent bottle brush	10	250	1	9.019 030 4
Reagent bottle brush with wool tip	15	280	1	9.019 035
Reagent bottle brush with wool tip	30	270	1	9.019 040
Erlenmeyer flask and bottle brush	50	340	1	9.019 050 5
Erlenmeyer flask and bottle brush	63	470	1	9.019 060
Beaker brush with wooden handle	85	390	1	9.019 070 6
Beaker brush with wooden handle	85	430	1	9.019 080
Beaker brush with wooden handle	90	430	1	9.019 090
Beaker brush with extra long handle	90	630	1	9.019 092
Rinsing brush	65	220	1	9.019 110 7
Burette brush with 1m long wire handle	30	1000	1	9.019 100

3



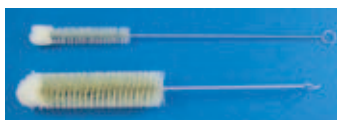
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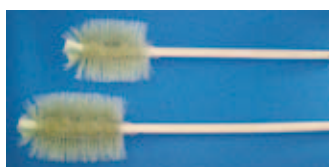
9.019 030

5



9.019 050

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9.019 070

7



9.019 110

11. Cleaning and sterilisation

Cleaning implements/Brushes-Draining racks

Cleaning brushes

Perlon®. Upper part of cat.-no. 6.235 964 is made from cotton.

Diam. mm	Length mm	For	PK	Cat. No.	
40 x 100	120	flasks	10	4.008 502	1
20 x 120	650	burettes and tubing	10	6.235 961	2
70 x 150	300	large flasks	10	6.235 962	
50 x 120	200	medium flasks	10	6.235 963	
25 x 110	120	tubes	10	6.235 964	
12 x 80	120	narrow tubes	10	6.235 965	3
NS 29/32	330	laboratory brushes with swivel head	10	6.242 423	4



4.008 502



6.235 961



6.235 965



6.242 423

5 Draining racks, PE-coated wire

PE-coated wire.

Wall or bench mounting.

With drip channel and plastic covered feet.

Dimensions (L x W x H): 420mm x 160mm x 610mm.

Description	PK	Cat. No.
For 60 reagent bottles and 5 flasks	1	9.003 305
For 24 reagent bottles and 20 flasks	1	9.003 320



6 Draining rack, PS

PS. Wall mounting, with wide draining trough. Pegs can be inserted as required. Peg holes are sealed at the rear to prevent water leakage penetrating the wall behind.

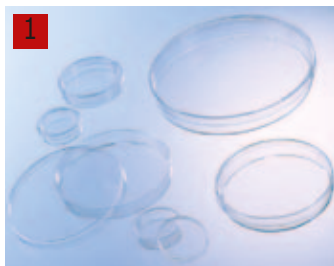
Supplied with 72 pegs (16mm diameter, 120mm long), 11 small pegs (6mm diameter, 95mm long) drain tubing and fittings for wall mounting.

Description	PK	Cat. No.
Draining rack with 72 pegs	1	9.003 240



12. Life Sciences, Biotechnology

Cell culture/Petridishes and accessories-Reaction tubes



1 Petri dishes, PS

Non-sterile. For bacteriology. With or without vents. In light or heavy duty versions.

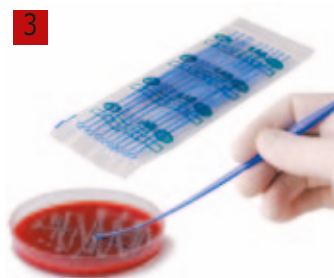
Dimensions mm	Vents	Description	PK	Cat. No.
35 x 10	with	light	740	9.408 035
60 x 15	with	light	600	9.408 040
94 x 16	without	light	480	9.408 094
94 x 16	without	heavy	480	9.408 047
94 x 16	with	light	480	9.408 095
94 x 16	with	heavy	480	9.408 045
100 x 15	with	light	420	6.077 283
100 x 20	with	light	360	6.510 005
145 x 20	with	light	120	6.052 085



2 Petri dishes, Soda-lime glass

Steriplan®. Hydrolytical class 3.

Diam. mm	Height mm	PK	Cat. No.
40	12	1	9.170 401
60	15	1	9.170 417
80	15	1	9.170 432
100	15	1	9.170 442
100	20	1	9.170 443
120	20	1	9.170 448
150	25	1	9.170 451
180	30	1	9.170 456
200	30	1	9.170 460
200	50	1	9.170 461



3 LLG-Inoculation loops, PS

Inoculation loops "plastic" are made of flexible polystyrene. They have ultra smooth loops and offer problem free planting and streaking of cultures.

Free of lubricants, oils and electrostatic charges, enabling consistent wetting and complete liquid transfer. Loops do not cut or gouge the agar surface during streaking. Ergonomical design of the loop handle improves grip due to the large handle and assists orientation. When viewed in cross section, the shafts of the loops have a hexagonal shape which creates a handle with six flat surfaces. This design facilitates maximum grip and easy orientation of the loop head. The needle end for colony counting is also a perfect tool for picking off individual isolated colonies. They are also suitable for making stab inoculations into agar slants or tubes of solid culture medium.

- Sterile
- Package: 10 bags of 10 pieces

Type	Capacity µl	PK	Cat. No.
Needle / loop	1	100	9.160 041
Needle / loop	10	100	9.160 042
Loop / loop	1	100	9.160 043



4 LLG- Replicator stamp

The replicator stamp enables the transfer of bacterial or yeast colonies from one culture medium plate to another.

To duplicate the colony plates, fix one of the sterile tissues on the stamp with the aluminium ring.

Then press the top side of the colony plate gently onto the stamp.

Use a new plate to produce the duplication.

The replicator stamp is made of plastic (POM). Height: 72mm, Ø: 81mm.

It is suitable for max. 100mm Ø petri dishes. Aluminium ring : Ø: 83mm

Disinfection of the replicator stamp including aluminium ring can be made with ethanol.

The tissues (15 x 15cm) are made of cotton/polyester and can be autoclaved.

Description	PK	Cat. No.
LLG-Replicator stamp	1	9.055 000
LLG-Autoclavable tissues	1	9.055 001
LLG-Set stamp + 12 tissues	1	9.055 002

1 LLG-Microcentrifuge tubes, PP

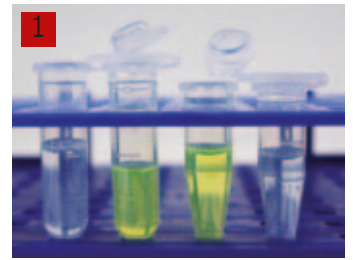
LLG Microtubes cover standard volumes for a variety of sample tests. They are available in 1.5ml and 2.0ml volumes. These standard Microtubes withstand high centrifugal forces, are temperature- and chemical-resistant and guaranteed against leaks. An innovative and modern new generation of Microtubes with new features. Perfect sealing qualities, excellent chemical stability and optimal construction materials guarantee even better resistance to centrifugal and chemical forces. Easy to open and to close thanks to the improved lid geometry. For visual volume control the tubes are equipped with a graduation scale from 0.1 to 1.5 or 2.0ml. Certified DNase-, RNase- and pyrogene free.

Non sterile, clear, in bags. Certified free of DNase, RNase, suitable for microbiology. Guaranteed metal-free. CE-certified for In-Vitro-Diagnostics acc. to 98/79/EG.

Specifications

Autoclavability	
Temperature:	121°C (250°F)
Pressure:	1.05 bar or 15 psig (pounds)
Time:	20min or less
Centrifugation	
Fixed angle rotor:	25000xg
Swing out rotor:	70000xg

Capacity ml	PK	Cat. No.
0.5	1000	9.409 023
1.5	1000	9.409 024
2.0	1000	9.409 025



2 96-Well PCR Rack, PP

Removable hinged lid lies flat. Perfect for pre- or post-PCR sampling. Sturdy polypropylene rack accommodates individual 0.2ml tubes or strips of 8 or 12 tubes. Tube wells are easily identified with embossed numbers and letters. Dimensions (L x W x H): 130 x 98 x 33mm. Autoclavable.

Colour	PK	Cat. No.
blue, green, pink, yellow, orange	5	9.409 661



LLG-PCR Tubes and Plates, PP

- Premium quality
- Produced in a cleanroom environment
- RNase-, DNase-, Human DNA- and Pyrogen-free
- Virgin Polypropylene
- Compatible with all major thermal cyclers

3 4 LLG-PCR tubes with attached lids, PP

- individual tubes
- 0.2ml or 0.5ml
- maximum tube capacity: 0.25ml or 0.6ml when closed
- individual attached flat or domed snap caps
- virgin polypropylene, certified RNase, DNase and endotoxin free

Description	PK	Cat. No.
0.2ml, single, flat cap	1000	9.407 501
0.2ml, single, domed cap	1000	9.407 502
0.5ml, single, flat cap	1000	9.407 504
0.5ml, single, domed cap	1000	9.407 505



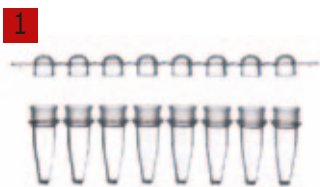
12. Life Sciences, Biotechnology

PCR/Tubes-Plates

LLG-PCR-Tubes, 8 Strips, PP

- for 0.2ml thermal cycler blocks
- detached cap strips can be used as individual tubes when cut
- with domed or flat caps
- virgin polypropylene, certified RNase, DNase and endotoxin free

Description	PK	Cat. No.	
8 PCR tube strips plus detached cap strips, domed caps	250	9.407 503	1
8 PCR tube strips plus detached cap strips, flat caps	250	9.407 514	2
8 PCR tube strips with individually attached flat snap caps	250	9.407 515	3
8 PCR tube strips with individually attached domed ultra clear snap caps	250	9.407 516	4



9.407 503



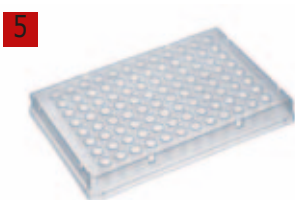
9.407 514



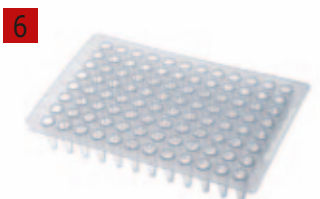
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9.407 507

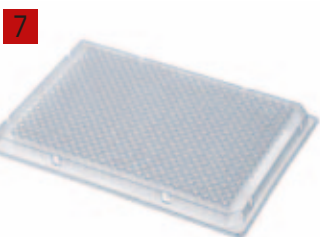


6.238 061

LLG-96-well PCR Plates, PP

- cut-away corner for orientation
- clear well bottom for sample visibility
- virgin polypropylene, certified RNase, DNase and endotoxin free

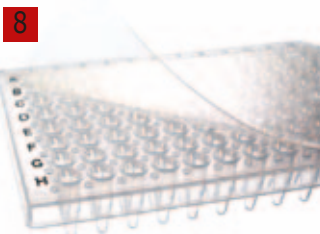
Description	Capacity μl	PK	Cat. No.	
96 Well Skirted PCR Plate, low profile, PP	200	25	9.407 507	5
96 Well Non-Skirted PCR Plate, PP	300	25	6.238 061	6



LLG-384-well PCR plates, PP

- maximum well volume: 40μl
- working well volume: 25μl
- cut-away corners for plate orientation
- fully skirted for use with automated systems
- holes in the skirt for easy handling
- compatible with all leading 384 block thermal cyclers
- virgin polypropylene, certified RNase, DNase and endotoxin free

Description	Capacity μl	PK	Cat. No.	
384 Well Skirted PCR Plate, thin wall, PP	40	50	9.407 500	



6.238 132

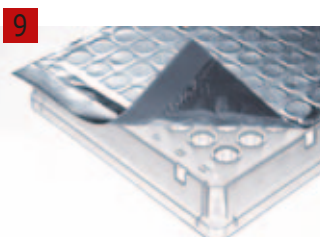
LLG-PCR adhesive film and foil

For use in cyclers with screw-down or clip-down lids. With end tabs

PCR Film: Clear film allows both the visual inspection of samples and fluorescence measurements.

PCR Foil: Easy to pierce, no residue of adhesive on the pipette tips.

QPCR Foil: Adhesive seal optically clear, peelable, for QPCR and fluorescence applications.



9.407 506

Description	Temp. range °C	PK	Cat. No.	
PCR film	-20 to +120	100	6.238 132	8
PCR foil	-80 to +150	100	9.407 506	9
QPCR foil	-40 to +120	50	6.240 725	

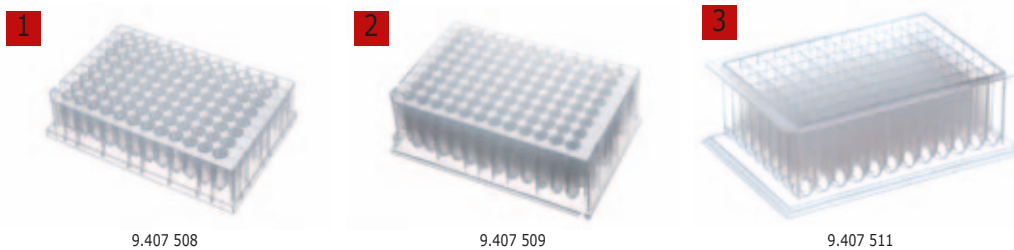
LLG storage plates, PP

- produced in a cleanroom environment
- RNase-, DNase-, Human DNA- and Pyrogen-free
- virgin Polypropylene
- choice of well-types

LLG-96-well storage plates, PP

- cut-away corner for orientation
- resistant to DMSO and low temperatures (-196°C)
- virgin polypropylene, certified RNase, DNase and endotoxin free

Description	Capacity µl	PK	Cat. No.
96 Well Storage Plate, round caps, with V-Bottom	800	50	9.407 508
96 Deep Well Storage Plate, round caps, with U-Bottom	1200	50	9.407 509
96 Deep Well Storage Plate, square caps, with U-Bottom	2200	50	9.407 511



4 LLG-Sealing mats for 96-well storage plates

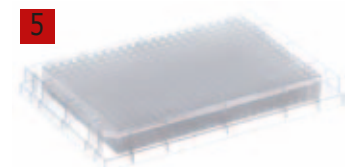
- autoclavable
- not-piercable, not DMSO resistant
- alphanumeric grid
- thermoplastic elastomer
- flexible with end tabs
- with round or angled nodules



Description	For	PK	Cat. No.
Sealing Mat with round nodules for 96 round well plates	9.407 508 / 9.407 509	50	9.407 513
Sealing Mat with angled nodules for 96 angled well plates	9.407 511	50	9.407 517

5 LLG-384-well storage plates

- 384 square wells
- pyramidal well bottom for optimal sample retrieval
- raised rims for optimal sealing and reduced risk of cross-contamination
- raised rims on the corners to protect edges of seals



Description	Capacity µl	PK	Cat. No.
384 Well Storage Plate, with V Bottom	120	50	9.407 510
384 Well Storage Plate, with V Bottom	300	50	9.407 512

