

SUPERIOR
MARIENFELD



BETTER SYNDICATE CO., LTD.



Paul Marienfeld GmbH & Co. KG

Our company was founded in 1922 by Paul Marienfeld in Thuringia and since that date the company is owned by the Marienfeld family. In 1955, the company moved to Baden-Württemberg and nowadays we distribute our products from Lauda-Königshofen to more than 100 countries worldwide.

Since 1922: Our experience is your success

Our comprehensive range of quality laboratory glassware like microscope slides, cover glasses, counting chambers, capillary tubes, laboratory containers and volumetric glassware has made our name and our brand renowned internationally. Many products made of plastics and porcelain for the general laboratory work complement our range of laboratory glassware.

The brand Marienfeld Superior has become a synonym for quality and reliability. Our experience of more than 88 years in developing and producing laboratory glassware will be your success, too.

Your advantages

Short delivery times

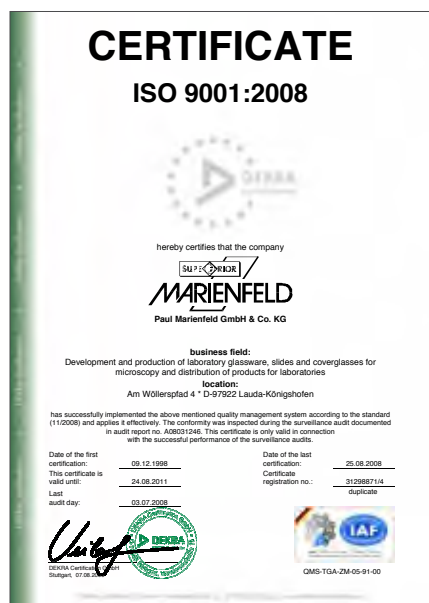
We stock a large amount of inventory for our customers in our high bay warehouse with over 1500 storing positions and 3000 shelves. In our catalogue arrows indicate products that are, usually, available on short notice even in large quantities.

Security

According to the EU directive 98/79/EC for in-vitro diagnostic products (IVD) the packing of IVD products bears the CE-mark, the production lot number and a recommended best before date for those products with a limited shelf life. This ensures the traceability of our IVD products and serves as comprehensive customers' information, too.

Quality

Our quality management is certified by DEKRA Certification Services acc. to DIN EN ISO 9001:2008. A quality control which accompanies the entire production process and stringent final checks ensure that our customers only receive items of the highest quality.



Technical information glass

Soda lime glass

This glass is used for microscope slides for its surfaces' properties. Due to his high linear coefficient of expansion it does not withstand thermal shocks.

Borosilicate glass D 263™ M

This glass is highly resistant against acids and alkali and perfectly suitable for microscope cover glasses. Due to his high linear coefficient of expansion it does not withstand thermal shocks.

Borosilicate glass 5.1

This glass is more resistant to variations of temperature than soda lime glass and D 263™ M.

Borosilicate glass 3.3

This glass is perfectly suitable for high quality measuring instruments as it is highly resistant against acids and alkali. Due to its small linear coefficient of expansion it withstands thermal shocks very well.

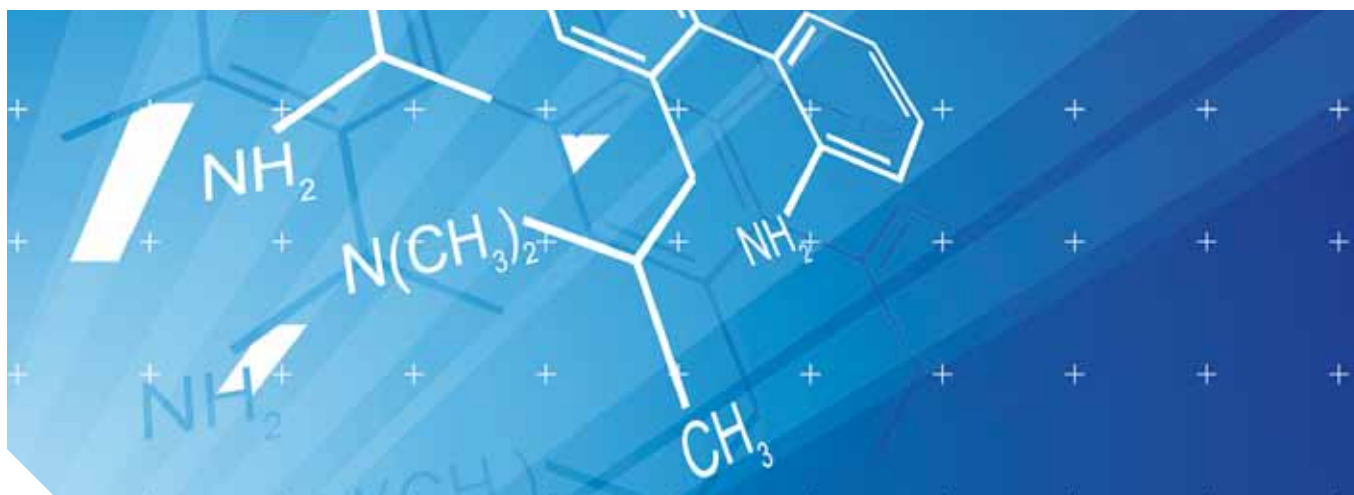


	Soda lime glass	Borosilicate glass D 263™ M	Borosilicate glass 5.1	Borosilicate glass 3.3
Linear expansion coefficient approx.:	$9 \times 10^{-6} \times K^{-1}$	$7 \times 10^{-6} \times K^{-1}$	$4.9 \times 10^{-6} \times K^{-1}$	$3.3 \times 10^{-6} \times K^{-1}$
Autoclavable:	yes	yes	yes	yes
Hydrolytic resistance (DIN ISO 719):	class 3	class 1	class 1	class 1
Acid resistance (DIN 12 116):	class 3	class 2	class 1	class 2
Alkali resistance (DIN ISO 695):	class 2	class 2	class 2	class 1

Technical information plastics

Abbreviations of the described plastics acc. to DIN 7728

ABS	Acrylonitrile-butadiene-styrene
ETFE	Ethylene-Tetrafluoroethylene copolymer
PBT	Polybutylene terephthalate
PE-HD	Polyethylene high density
PE-LD	Polyethylene low density
PMP	Polymethylpentene
POM	Polyoxymethylene
PP	Polypropylene
PS	Polystyrene
PTFE	Polytetrafluoroethylene
PVC	Polyvinylchloride



Picture spring, fotolia - U. Bakunowich

	Max. operating temperature	Microwave suitability*	Autoclavable** at 121 °C t _e 20 min per DIN	Hot air sterilization** at 160 °C (dry)
ABS	100 °C	no	no	no
ETFE	150 °C	yes	yes	no
PBT	180 °C	yes	yes	yes
PE-HD	105 °C	yes	no	no
PE-LD	80...90 °C	yes	no	no
PMP	150 °C	yes	yes	no
POM	130 °C	no	yes	no
PP	125 °C	yes	yes	no
PS	70 °C	no	no	no
PTFE	300 °C	yes	yes	yes
PVC	80 °C	no	no	no

* Please observe chemical and temperature resistance.

** Labware should be carefully cleaned and rinsed with distilled water before sterilization.
Please always remove covers from containers.

Counting grids

The types of counting chambers differ in counting grids and the depths of the chambers. Orthogonal lines form grids which become visible by magnifying them with a microscope. The grid of a counting chamber is engraved into the surface of its base.

Neubauer-improved

Nowadays the Neubauer-improved counting chambers has become the most popular one.

Its standard depth is 0.1 mm. The grid consists of 3 x 3 large squares with areas of 1 mm² each. The large square in the center is subdivided into 5 x 5 group squares with edges of each 0.2 mm length and areas of 0.04 mm². These group squares are again subdivided into sixteen small squares of an area of each 0.05 mm x 0.05 mm = 0.0025 mm².

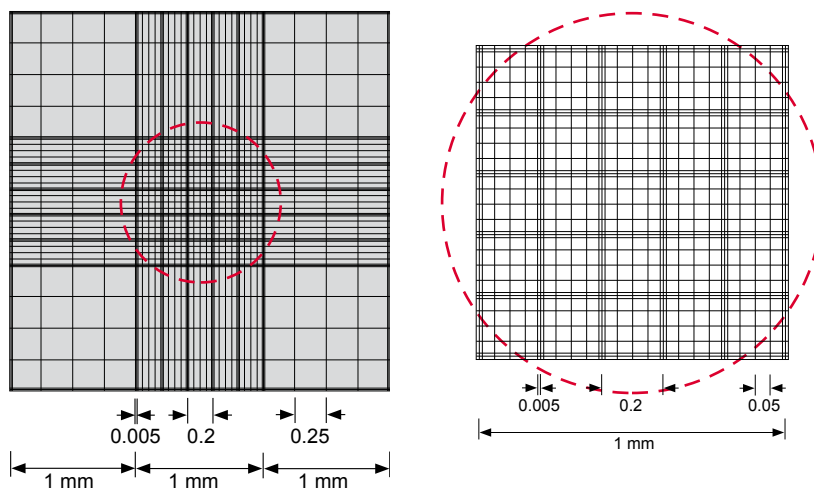
The lines limiting the large squares and the group squares are threefold with the central line as the actual dimension lines. The inner and outer auxiliary lines facilitate counting. They assist determining whether cells near or on the border lines are to be counted as within the area or omitted as outside of the counting area.

As the counting chamber comes with differently large squares it can be used for counting different types of cells. E.g. leucocytes are counted in the 4 large squares at the corners of the grid and normally for counting erythrocytes at least 5 group squares are used.

Dark line:

The grids of dark line counting chambers are engraved into the glass surface of the base of the chamber. When looking through a microscope these lines appear to be dark.

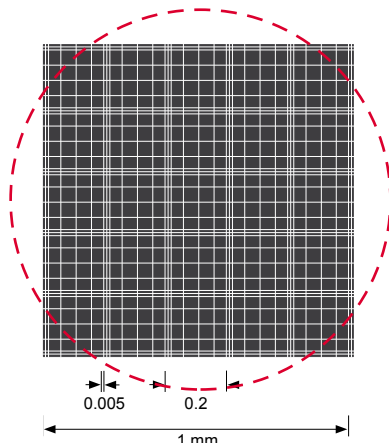
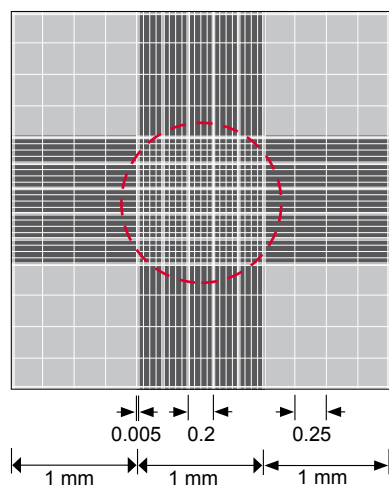
Neubauer-improved dark line



Depth = 0.1 mm

	□	mm x mm / 1 □	mm ² / 1 □	Vol. [μl]
Total net ruling	1	3 x 3	9	0.9
Large squares per grid	9	1 x 1	1	0.1
Group squares per large square	25	0.2 x 0.2	0.04	0.004
Small squares per group square	16	0.05 x 0.05	0.0025	0.00025

Neubauer-improved bright line

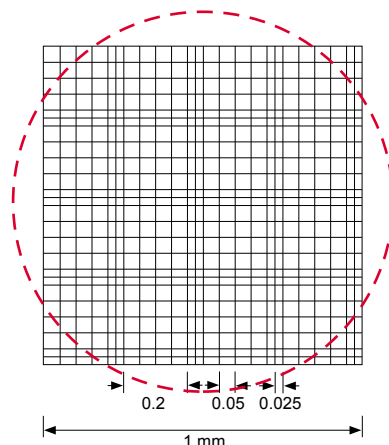
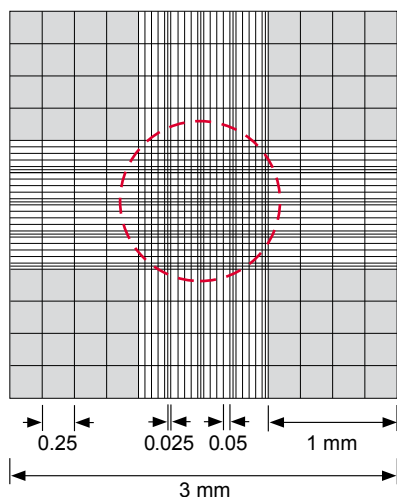
**Bright line:**

The grids of counting chambers with bright lines are engraved into a thin, vapour-deposited metal film. The bright lines contrast well with the darker, metallic background which facilitates the evaluation.

Depth = 0.1 mm

	□	mm x mm / 1 □	mm ² / 1 □	Vol. [μl]
Total net ruling	1	3 x 3	9	0.9
Large squares per grid	9	1 x 1	1	0.1
Group squares per large square	25	0.2 x 0.2	0.04	0.004
Small squares per group square	16	0.05 x 0.05	0.0025	0.00025

Neubauer



The depth of the Neubauer chamber is 0.1 mm.

Its net ruling covers 3 mm x 3 mm in total and consists of 9 large squares of 1 mm².

The central large square is subdivided in 4 x 4 group squares of 0.2 x 0.2 mm². Triple lines in a distance of 0.025 mm separate the group squares from each other. Each group square is subdivided in 16 small squares of 0.05 mm side length.

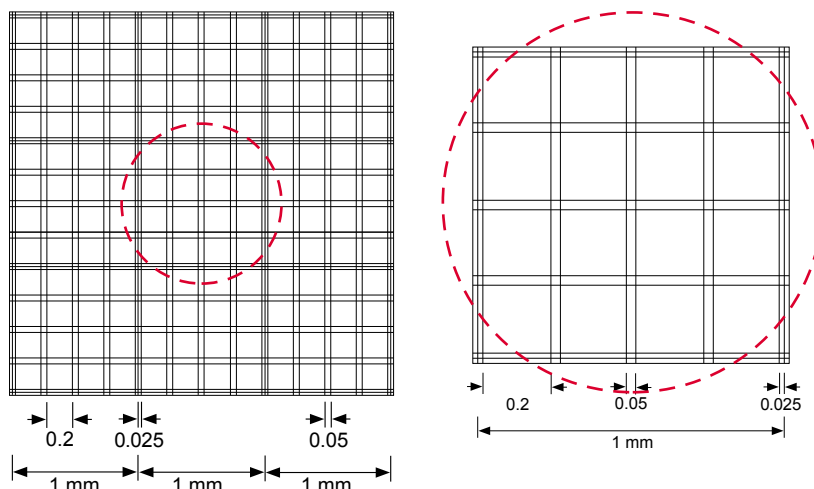
Depth = 0.1 mm

	□	mm x mm / 1 □	mm ² / 1 □	mm ³ = μl
Total net ruling	1	3 x 3	9	0.9
Large squares per grid	9	1 x 1	1	0.1
Group squares per large square	16	0.2 x 0.2	0.04	0.004
Small squares per group square	16	0.05 x 0.05	0.0025	0.00025

Buerker

The depth of the Buerker counting chamber is 0.1 mm. Its counting grid covers 9 mm² and is subdivided by triple lines into 9 large squares. The distances between the middle lines are 1 mm.

Each of these large squares is subdivided into 16 small squares by double lines with a space of 0.05 mm between them. The inner lines of these small squares form areas of 0.2 x 0.2 mm². The crossings of the double lines form small squares of 0.05 x 0.05 mm². These squares are suitable for counting thrombocytes and erythrocytes.



Depth = 0,1 mm

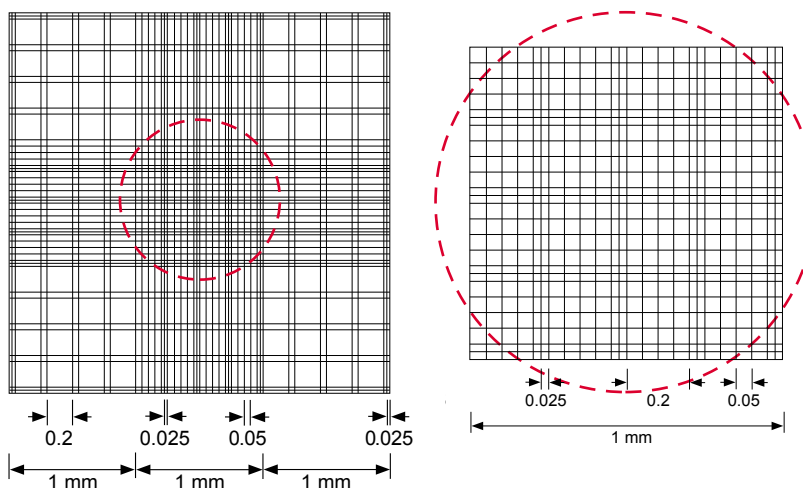
	□	mm x mm / 1 □	mm ² / 1 □	mm ³ = µl
Total net ruling	1	3 x 3	9	0.9
Large squares per grid	9	1 x 1	1	0.1
Small squares per Large square	16	0.2 x 0.2	0.04	0.004

Buerker-Tuerk

The depth of the Buerker-Tuerk chamber is 0.1 mm. The counting grid covers 9 mm² and is subdivided by triple lines into 9 large squares.

Each of these large squares is subdivided into 16 small squares by double lines with a space of 0.05 mm between them. The inner lines of these small squares form areas of 0.2 x 0.2 mm².

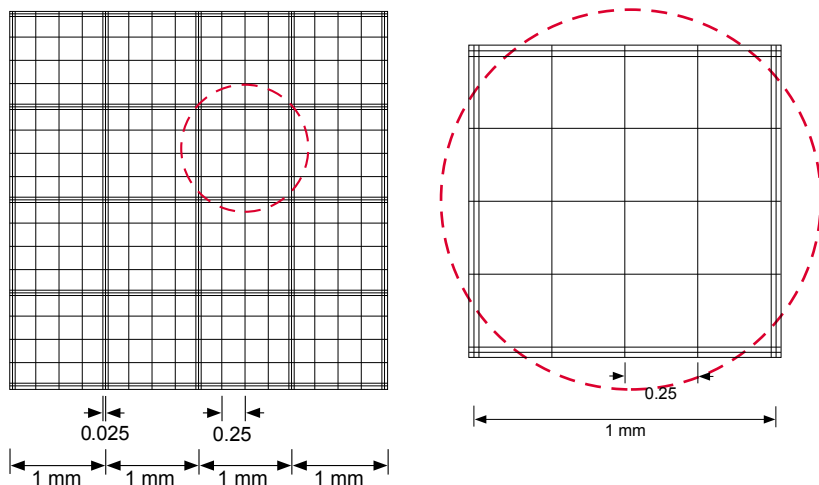
Additionally to the Buerker chamber the 16 small square of the central large square are subdivided again into 16 squares with 0.05 mm length of the edge and an area of 0.0025 mm².



Depth = 0.1 mm

	□	mm x mm / 1 □	mm ² / 1 □	mm ³ = µl
Total net ruling	1	3 x 3	9	0.9
Large squares per grid	9	1 x 1	1	0.1
Small squares per large square	16	0.2 x 0.2	0.04	0.004
Smallest squares per small square	16	0.05 x 0.05	0.0025	0.00025

Fuchs-Rosenthal



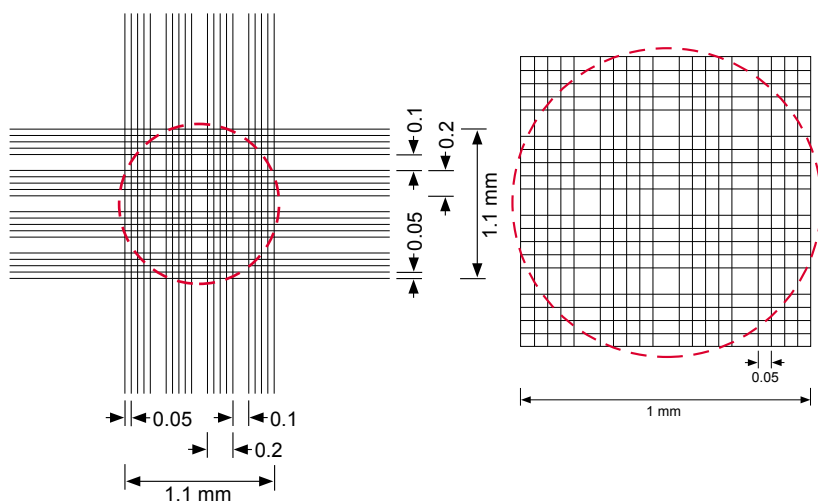
The depth of the Fuchs-Rosenthal counting chamber is 0.2 mm. In total the grid covers 16 mm² and contains 16 large squares of each 1 mm length of the edge. These large squares are separated by triple lines with a space of 0.01 mm between each other. The distance between the center lines is 1 mm. All 16 large squares are subdivided into 16 small squares of a side length of 0.25 mm.

Due to the large counting grid and a depth of 0.2 mm the total volume amounts to 3.2 µl. This counting chamber is, therefore, preferably used for counting cell suspensions with relatively few cells, e.g. cerebro-spinal fluid.

Depth = 0.1 mm

	□	mm x mm / 1 □	mm ² / 1 □	mm ³ = µl
Total net ruling	1	4 x 4	16	3.2
Large squares per grid	16	1 x 1	1	0.2
Small squares per large square	16	0.25 x 0.25	0.0625	0.0125

Thoma new



The depth of the Thoma new counting chamber is 0.1 mm. The grid covers an area of 1.1 x 1.1 mm². It is subdivided in 16 group squares with a side length of 0.2 mm.

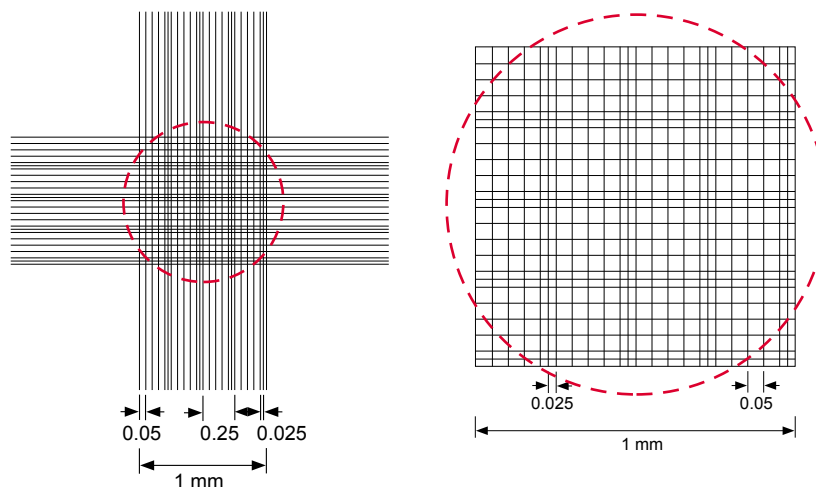
These group squares have a distance of 0.1 mm to the adjacent group squares. They are subdivided into 16 small squares.

Thoma

The depth of the Thoma counting chamber is 0.1 mm. The grid covers an area of $1 \times 1 \text{ mm}^2$.

It is subdivided into group squares with a side length of 0.2 mm (like the Neubauer system).

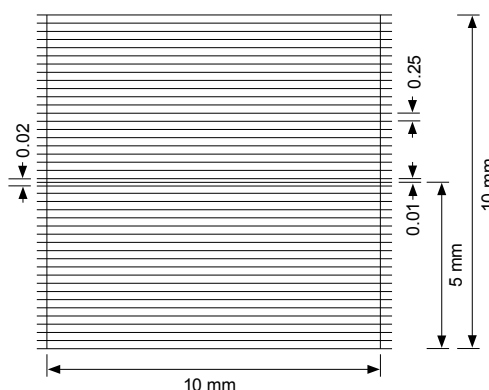
The group squares are subdivided into 16 small squares of an area of $0.05 \text{ mm} \times 0.05 \text{ mm} = 0.0025 \text{ mm}^2$.



Nageotte

The depth of the Nageotte counting chamber is 0.5 mm.

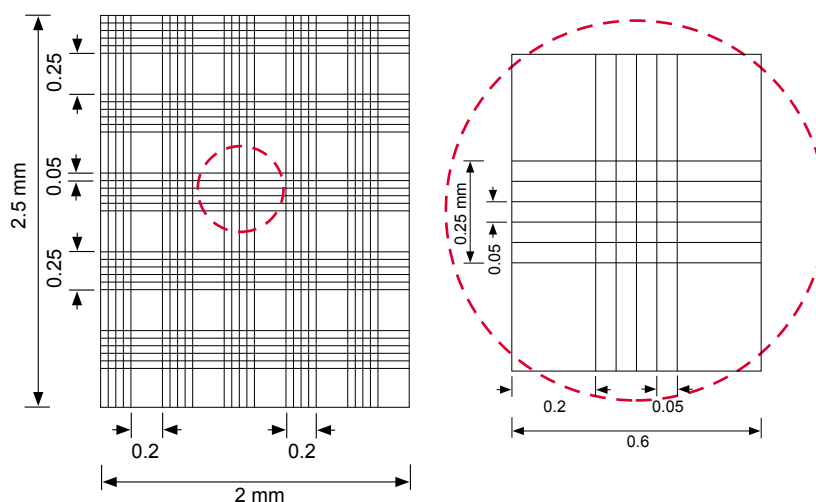
The square area of 100 mm^2 is divided into 40 rectangles each with an area of $0.25 \times 10 = 2.5 \text{ mm}^2$. This counting chamber is mainly used for counting cells in cerebro-spinal fluid or for counting nematodes.



Malassez

The depth of the Malassez counting chamber is 0.2 mm. The counting grid covers $2 \times 2.5 \text{ mm}^2$. The large rectangles have an area of $0.25 \times 0.20 = 0.05 \text{ mm}^2$. Each of them is subdivided into 20 small squares with an area of each $0.05 \text{ mm} \times 0.05 \text{ mm} = 0.0025 \text{ mm}^2$.

This counting chamber is used for counting cells in liquor (cerebro-spinal fluid) and for counting nematodes for example.







Counting chambers

Marienfeld Superior counting chambers are precise measuring instruments to determine the number of particles in liquids.

- made of special optical glass
- in compliance with DIN ISO 12 847
- individually tested according to the German Calibration Ordinance
- planarity and tolerances are strictly observed
- tolerance of depth of chamber max. 2 %
- our counting chambers for investigations of cell suspensions are equipped with 2 sets of grids. In-vitro diagnostic (IVD) applications generally require duplicate determinations. Double counting grids = double check possibility.
- a cover glass with a thickness of 0.4 mm is placed on top of both external stages of the counting chamber to limit the volume over the counting grids
- 2 haemocytometer cover glasses with thickness 0.4 mm are supplied with each counting chamber. For spare cover glasses please see page 19.
- in general, we recommend haemocytometer cover glasses 20 x 26 mm. Counting chambers Fuchs-Rosenthal require cover glasses 24 x 24 mm and counting chambers Nageotte require cover glasses 22 x 30 mm or 30 x 30 mm. Thinner cover slips should not be used as they bend because of the capillary.
- individually packed in transparent plastic box, 10 pcs. in a carton
- counting grids are engraved into two ground and polished surfaces on the central stage (= chamber bottom). This central stage is located between two elevated also ground and polished stages.

• Dark line:

Standard counting chambers have counting grids which are engraved into the chamber bottom. Under the microscope the lines of the counting grid appear dark.

• Bright line:

Bright lined counting chambers have counting grids which are structured into a very thin, transparent metal coating. The bright lines contrast well with the dark metallic background and this facilitates evaluating cell suspensions.



New



New

Counting chambers with V-slash

Counting chambers with V-slash at the exterior sides of the chamber bottom offer various advantages:

- the V-slash facilitates the feeding of the capillary gap between chamber bottom and haemocytometer cover glass
- the risk of overflow is reduced

Cat. No.		Depth of chamber	Unit
Approved for in-vitro diagnostic (IVD) applications according to IVD directive 98/79/EC, with CE-mark			
06 500 10	Neubauer-improved, dark line	0.1 mm	1
06 500 30	Neubauer-improved, bright line	0.1 mm	1

Counting chambers

Cat. No.	Depth of chamber	Unit
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Approved for in-vitro diagnostic (IVD) applications according to IVD directive 98/79/EC, with CE-mark

Dark line

▶ 06 400 10	Neubauer-improved	0.1 mm	1
▶ 06 401 10	Neubauer	0.1 mm	1
▶ 06 402 10	Buerker	0.1 mm	1
▶ 06 403 10	Buerker-Tuerk	0.1 mm	1
▶ 06 404 10	Fuchs-Rosenthal	0.2 mm	1
▶ 06 405 10	Nageotte	0.5 mm	1
▶ 06 406 10	Malassez	0.2 mm	1
▶ 06 407 10	Thoma	0.1 mm	1
▶ 06 408 10	Thoma new	0.1 mm	1

Bright line

▶ 06 400 30	Neubauer-improved	0.1 mm	1
▶ 06 401 30	Neubauer	0.1 mm	1
▶ 06 402 30	Buerker	0.1 mm	1
▶ 06 403 30	Buerker-Tuerk	0.1 mm	1
▶ 06 404 30	Fuchs-Rosenthal	0.2 mm	1
▶ 06 405 30	Nageotte	0.5 mm	1
▶ 06 406 30	Malassez	0.2 mm	1
▶ 06 407 30	Thoma	0.1 mm	1
▶ 06 408 30	Thoma new	0.1 mm	1



Cat. No.	Depth of chamber	Unit
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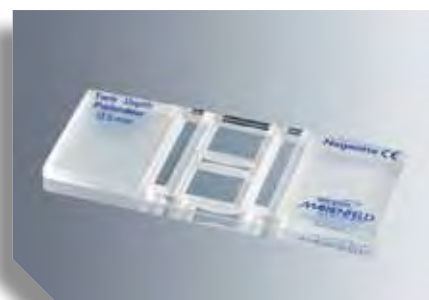
Without CE-mark, only for sale and application outside EC

Dark line

▶ 06 100 10	Neubauer-improved	0.1 mm	1
▶ 06 101 10	Neubauer	0.1 mm	1
▶ 06 102 10	Buerker	0.1 mm	1
▶ 06 103 10	Buerker-Tuerk	0.1 mm	1
▶ 06 104 10	Fuchs-Rosenthal	0.2 mm	1
▶ 06 105 10	Nageotte	0.5 mm	1
▶ 06 106 10	Malassez	0.2 mm	1
▶ 06 107 10	Thoma	0.1 mm	1

Bright line

▶ 06 100 30	Neubauer-improved	0.1 mm	1
▶ 06 101 30	Neubauer	0.1 mm	1
▶ 06 102 30	Buerker	0.1 mm	1
▶ 06 103 30	Buerker-Tuerk	0.1 mm	1
▶ 06 104 30	Fuchs-Rosenthal	0.2 mm	1
xx xxx x1	For counting chambers with 2 clamps please amend Cat. No. accordingly		

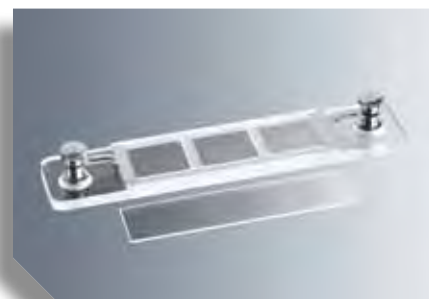


Information on the use of counting chambers can be downloaded from our website.

▶ This arrow indicates products that are usually available on short notice.

Counting chambers McMaster with 3 grids

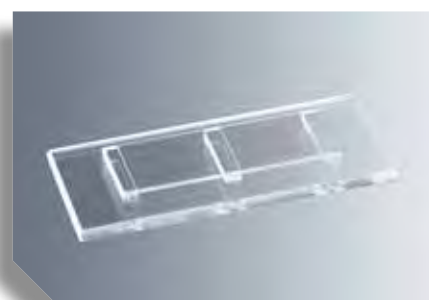
- for counting worm eggs
- suitable for liquid media
- dimensions: approx. 127 x 26 mm
- depth: approx. 1.5 mm
- separate cover glass with 3 counting grids approx. 10 x 10 mm (divided into 10 parts)
- with 1 pair of clamps to fix the cover glass
- ground edges and rounded corners



Cat. No.		Unit
▶ 06 111 41	chamber complete	1
▶ 03 350 01	spare cover glass approx. 80 x 18 mm	1

Counting chambers McMaster with 2 grids

- for counting worm eggs
- suitable for solid media
- dimensions: approx. 75 x 32 mm
- the cover glass with 2 counting grids approx. 10 x 10 mm (divided into 10 parts) on 3 supports affixed
- distance between bottom plate and cover glass: approx. 1.5 mm



Cat. No.		Unit
▶ 06 112 40	chamber complete	1

Counting chambers Sedgewick Rafter

Counting chambers acc. to Sedgewick Rafter are intended for counting of particles and microorganisms in water or other transparent liquids.

- the cell of 50 x 20 x 1 mm (= 1 cm³) is ruled in a 1 mm grid subdividing 1 ml in 1000 µl
- supplied with cover glass approx. 60 x 30 x 1 mm



Cat. No.		Unit
▶ 06 113 00	precision type made of glass with chromium deposited for phase contrast use with ground and chamfered edges	1
▶ 06 114 00	single type made of plastic	1
▶ 03 360 00	spare cover glass approx. 60 x 30 x 1 mm	1

Blood diluting pipettes acc. to Thoma

- for white blood corpuscles (leucocytes, proportion of dilution 1 : 10) or for red blood corpuscles (erythrocytes, proportion of dilution 1 : 100)
- in compliance with DIN ISO 12 750
- white back
- blue graduation
- tolerance: $\pm 3\%$
- divided into 10 parts
- individually packed in poly bags, 10 pieces in a box

Cat. No.	For	Type	Unit
Without CE-mark, only for sale and application outside EC			
32 020 00	leucocytes	with funnel top	10
32 030 00	leucocytes	without funnel top	10
32 050 00	erythrocytes	with funnel top	10
32 060 00	erythrocytes	without funnel top	10
Approved for in-vitro diagnostic (IVD) applications according to IVD directive 98/79/EC, with CE-mark			
32 640 00	leucocytes	with funnel top	10
32 650 00	erythrocytes	with funnel top	10



When pipetting, please note the safety regulations. Pipetting by mouth is dangerous. We disclaim any responsibility.



Pasteur pipettes

- made of soda lime glass
- in compliance with DIN ISO 7712
- with long and fine tip
- with constricted upper suction end to retain a cotton plug
- for single use
- handy packaging in boxes containing 250 pieces
- 4 x 250 pieces resp. 8 x 250 pieces in a carton



Cat. No.	Length	Ø Tip mm	Unit
Without cotton plug			
▶ 32 330 49	150 mm	1.3 to 1.5 ext. / 1.1 to 1.2 int.	1000
▶ 32 330 50	230 mm	1.3 to 1.5 ext. / 1.1 to 1.2 int.	1000
▶ 32 330 53	150 mm	0.9 to 1.8 ext.	2000
▶ 32 330 54	230 mm	1.2 to 1.8 ext.	2000
With inserted cotton plug			
▶ 32 340 49	150 mm	1.3 to 1.5 ext. / 1.1 to 1.2 int.	1000
▶ 32 340 50	230 mm	1.3 to 1.5 ext. / 1.1 to 1.2 int.	1000



Pipetting aids for pasteur pipettes

- made of natural rubber
- capacity: approx. 2 ml
- olive form
- opening at rolled rim approx. 5 mm diameter

Cat. No.	Unit
▶ 59 020 00	100

Haematocrit tubes acc. to Wintrobe

- made of soda lime glass
- with round bottom
- with straight rim
- with double numbered scale in red / white colour
- graduation: 105 mm subdivided in 1 mm
- without CE-mark, only for sale and application outside EC

Cat. No.	Ø ext.	Ø int.	Multipack	Unit
▶ 32 310 00	6.5 mm	2.9 mm	100 x 20	20



Centrifuge tubes

- long conical type
- dimensions: approx. 112/113 x 16/17 mm
- capacity: approx. 15 ml
- 100 pieces in a box

Cat. No.	Unit
Soda lime glass, with beaded rim	
▶ 39 100 02 ungraduated	100
▶ 39 100 12 white graduated 1 to 10 : 0.1 ml, with mark at 15 ml	100
▶ 39 100 22 white graduated 1 to 15 : 0.1 ml	100
Soda lime glass, straight rim	
▶ 39 000 22 white graduated 1 to 15 : 0.1 ml	100
Borosilicate glass 3.3, with beaded rim	
39 400 02 ungraduated	100
39 400 22 white graduated 1 to 15 : 0.1 ml	100



▶ This arrow indicates products that are usually available on short notice.



Test tubes Durham

Durham tubes are mainly used in microbiology to detect gas produced by micro organisms. These special tubes are placed upside down in bigger test tubes.

- made of soda lime glass
- with straight rim
- with round bottom
- ungraduated
- 250 resp. 350 pieces in a box

All dimensions of the test tubes are approximate.

Cat. No.	Length x Ø ext.	Wall thickness	Capacity	Unit
37 004 01	25 x 7 mm	0.7 mm	0.5 ml	1000
▶ 37 004 00	35 x 6 mm	0.7 mm	0.5 ml	1000
▶ 37 004 06	50 x 6 mm	0.7 mm	0.75 ml	1050

Standard ground joint stoppers

- made of borosilicate glass 3.3
- very good chemical resistance
- with standard ground joint in compliance with DIN 12 252
- hollow
- with hexagonal grip
- with closed tip



Cat. No.	Ground joint	Unit
▶ 48 200 00	NS 7/16	10
▶ 48 200 01	NS 10/19	10
▶ 48 200 02	NS 12/21	10
▶ 48 200 03	NS 14/23	10
▶ 48 200 04	NS 19/26	10
▶ 48 200 05	NS 24/29	10
▶ 48 200 06	NS 29/32	10
48 200 07	NS 34/35	10
48 200 08	NS 45/40	10
48 210 00	NS 7/16	100
48 210 01	NS 10/19	100
48 210 02	NS 12/21	100
48 210 03	NS 14/23	100
48 210 04	NS 19/26	100
48 210 05	NS 24/29	100
48 210 06	NS 29/32	100

- made of polyethylene (PE)
- with octagonal grip for easy opening and closing
- with red insert
- minimum order quantity: 10 pieces

Cat. No.	Ground joint
54 021 28	NS 7/16
▶ 54 021 29	NS 10/19
▶ 54 021 30	NS 12/21
▶ 54 021 31	NS 14/23
▶ 54 021 32	NS 19/26
▶ 54 021 33	NS 24/29
▶ 54 021 34	NS 29/32
54 021 35	NS 34/35
54 021 36	NS 45/40
54 021 37	NS 60/46



Clamps for standard ground joints

Clamps for standard ground joints are used to securely link the socket and the cone. In addition to their excellent resilience our clamps also offer stability. Furthermore, the materials used for our clamps avoid scratching on the glass surfaces.

- made of plastic (POM)
- very good chemical resistance
- maximum operating temperature: 150 °C
- different colours for rapid identification of respective ground joint sizes



Cat. No.	For	Colour	Multipack
58 365 00	NS 10/19	black	10
58 365 01	NS 12/21	violet	10
▶ 58 365 02	NS 14/23	yellow	10
▶ 58 365 03	NS 19/26	blue	10
▶ 58 365 04	NS 24/29	green	10
▶ 58 365 05	NS 29/32	red	10
58 365 06	NS 34/35	orange	10
58 365 07	NS 45/40	amber	10



Bases for microburettes acc. to Bang

- for steady hold of microburettes with lateral stopcock
- made of metal and wood

Cat. No.	Unit
66 220 00	2



Microburettes acc. to Bang

- made of borosilicate glass 3.3
- in compliance with DIN EN ISO 385
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- class AS (fast delivery, circular graduation at main points)
- calibrated "Ex" (to deliver)
- with blue graduation and Schellbach stripe at the back of the instrument. This stripe facilitates reading precisely the meniscus of a liquid.
- 4 pieces in a sturdy carton

Cat. No.	Capacity	Tolerance	Unit
Straight stopcock, with NS glass plug in delivery stopcock and in stopcock of filling tube			
26 300 01	1 : 0.01 ml	± 0.010 ml	4
26 301 01	2 : 0.01 ml	± 0.010 ml	4
26 302 01	5 : 0.01 ml	± 0.010 ml	4
26 305 01	10 : 0.02 ml	± 0.020 ml	4
Straight stopcock, with NS PTFE plug in delivery stopcock and in stopcock of filling tube			
26 300 11	1 : 0.01 ml	± 0.010 ml	4
26 301 11	2 : 0.01 ml	± 0.010 ml	4
26 302 11	5 : 0.01 ml	± 0.010 ml	4
26 305 11	10 : 0.02 ml	± 0.020 ml	4
Lateral fine regulation stopcock with PTFE screw valve and stopcock of filling tube with PTFE plug			
26 400 21	1 : 0.01 ml	± 0.010 ml	4
26 401 21	2 : 0.01 ml	± 0.010 ml	4
26 402 21	5 : 0.01 ml	± 0.010 ml	4
26 405 21	10 : 0.02 ml	± 0.020 ml	4

Specific gravity bottles acc. to Gay-Lussac

The specific gravity bottle is a measuring device to determine the density of liquids.

- made of borosilicate glass 3.3
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- pear-shaped
- with ground-in glass stopper
- the calibrated versions show the actual capacity ± 0.001 ml. The exact capacity is durably engraved into the glass.

Cat. No.	Capacity	Unit
Not calibrated		
27 020 00	5 ml	2
▶ 27 030 00	10 ml	2
▶ 27 040 00	25 ml	2
▶ 27 050 00	50 ml	2
27 060 00	100 ml	2
Calibrated at 20 °C ("In")		
27 100 00	1 ml	2
27 110 00	2 ml	2
▶ 27 120 00	5 ml	2
▶ 27 130 00	10 ml	2
▶ 27 140 00	25 ml	2
▶ 27 150 00	50 ml	2
▶ 27 160 00	100 ml	2



Specific gravity bottles with ground joint thermometer NS 10/19

- made of borosilicate glass 3.3
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- lateral capillary tube with glass cap on ground joint
- measuring range of thermometer: 10 to 35 °C
- mercury filling
- calibrated at 20 °C ("In") showing the actual capacity ± 0.001 ml. The exact capacity is durably engraved into the glass.

Cat. No.	Capacity	Unit
27 220 00	5 ml	2
▶ 27 230 00	10 ml DIN 12 809	2
▶ 27 240 00	25 ml DIN 12 809	2
▶ 27 250 00	50 ml DIN 12 809	2
27 260 00	100 ml	2





Desiccators

Desiccators are suitable for drying and dehydration processes. If supplied with stopcock, they are also suitable for storage under vacuum.

- made of borosilicate glass 3.3 Simax
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- autoclavable
- with ground flat flange
- with plastic knob and interchangeable lid
- discs are not included. Please order separately.

Cat. No.	Diameter	Unit
Without stopcock		
▶ 42 014 01	100 mm	1
▶ 42 014 03	150 mm	1
▶ 42 014 05	200 mm	1
▶ 42 014 06	250 mm	1
▶ 42 014 07	300 mm	1
With stopcock		
▶ 42 016 01	100 mm	1
▶ 42 016 03	150 mm	1
▶ 42 016 05	200 mm	1
▶ 42 016 06	250 mm	1
▶ 42 016 07	300 mm	1



Discs for desiccators

- made of porcelain
- in compliance with DIN 12 911
- with several vent perforations and one central hole

Cat. No.	Diameter	Multipack
68 330 01	100 mm	20
68 330 04	150 mm	10
▶ 68 330 07	200 mm	10
▶ 68 330 10	250 mm	10
▶ 68 330 13	300 mm	10





Washing bottles

To be assembled by narrow neck thread bottle and screw cap with bent delivery tube.

- made of transparent polyethylene (PE-LD)
- material considered harmless, suitable for food contact
- break-resistant
- with DIN thread
- minimum order quantity: 10 pieces per size

Cat. No.	Capacity	Thread
Thread bottle, narrow neck		
▶ 54 013 06	100 ml	GL 18
▶ 54 013 07	250 ml	GL 25
▶ 54 013 08	500 ml	GL 25
▶ 54 013 09	1000 ml	GL 28
54 013 10	2000 ml	GL 28
Screw cap with bent delivery tube		
▶ 54 023 06		GL 18
▶ 54 023 08		GL 25
▶ 54 023 09		GL 28



Washing bottles with hazard symbol

Complete set consisting of thread bottle and screw cap with bent delivery tube.

- made of polyethylene (PE-LD)
- yellow coloured bottle with coloured imprint and hazard symbol
- break-resistant
- with DIN thread
- minimum order quantity: 5 pieces per size

Cat. No.	Capacity	Imprint
54 025 46	500 ml	Distilled water
54 025 47	500 ml	Acetone
54 025 65	1000 ml	Distilled water
54 025 66	1000 ml	Acetone

Bottles with round shoulder

- made of clear glass or amber glass
- with standard ground joint
- with standard ground joint stopper made of glass



Cat. No.	Capacity		Multipack
Narrow neck, clear glass			
▶ 36 520 04	50 ml	NS 14/15	48
▶ 36 520 05	100 ml	NS 14/23	70
▶ 36 520 06	250 ml	NS 19/26	30
36 520 07	500 ml	NS 24/29	15
▶ 36 520 08	1000 ml	NS 29/32	12
36 520 09	2000 ml	NS 29/32	6
Narrow neck, amber glass			
▶ 36 521 04	50 ml	NS 14/15	48
▶ 36 521 05	100 ml	NS 14/23	70
▶ 36 521 06	250 ml	NS 19/26	30
▶ 36 521 07	500 ml	NS 24/29	15
▶ 36 521 08	1000 ml	NS 29/32	12
36 521 09	2000 ml	NS 29/32	6
Wide neck, clear glass			
36 530 04	50 ml	NS 24/20	40
▶ 36 530 05	100 ml	NS 29/22	48
▶ 36 530 06	250 ml	NS 34/24	30
▶ 36 530 07	500 ml	NS 45/27	15
36 530 08	1000 ml	NS 60/31	12
36 530 09	2000 ml	NS 60/31	6
Wide neck, amber glass			
36 531 04	50 ml	NS 24/20	40
▶ 36 531 05	100 ml	NS 29/22	48
▶ 36 531 06	250 ml	NS 34/24	30
▶ 36 531 07	500 ml	NS 45/27	15
▶ 36 531 08	1000 ml	NS 60/31	12
36 531 09	2000 ml	NS 60/31	6



Crystallizing dishes

- made of borosilicate glass 3.3
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- cylindrical shape
- with fused rim
- with flat bottom

Cat. No.	Diameter	Height	Capacity	Unit
Without spout				
DIN 12 337				
42 104 00	40 mm	25 mm	20 ml	10
42 104 03	50 mm	30 mm	40 ml	10
▶ 42 104 05	60 mm	35 mm	60 ml	10
42 104 07	70 mm	40 mm	100 ml	10
42 104 08	80 mm	45 mm	150 ml	10
42 104 09	95 mm	55 mm	300 ml	10
42 104 10	115 mm	65 mm	500 ml	10
42 104 11	140 mm	75 mm	900 ml	10
42 104 13	190 mm	90 mm	2000 ml	4
42 104 14	230 mm	100 mm	3500 ml	4
With spout				
DIN 12 338				
42 105 00	40 mm	25 mm	20 ml	10
42 105 03	50 mm	30 mm	40 ml	10
▶ 42 105 05	60 mm	35 mm	60 ml	10
42 105 07	70 mm	40 mm	100 ml	10
▶ 42 105 08	80 mm	45 mm	150 ml	10
▶ 42 105 09	95 mm	55 mm	300 ml	10
▶ 42 105 10	115 mm	65 mm	500 ml	10
▶ 42 105 11	140 mm	75 mm	900 ml	10
42 105 13	190 mm	90 mm	2000 ml	4
42 105 14	230 mm	100 mm	3500 ml	4





Evaporating dishes

- made of borosilicate glass 3.3
- in compliance with DIN 12 336
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- hemispherical shape
- with flat bottom
- with fused rim
- with spout

Cat. No.	Diameter	Height	Capacity	Unit
42 103 01	40 mm	18 mm	10 ml	10
42 103 02	50 mm	25 mm	15 ml	10
42 103 04	60 mm	30 mm	45 ml	10
42 103 06	70 mm	35 mm	60 ml	10
▶ 42 103 08	80 mm	45 mm	90 ml	10
42 103 09	95 mm	55 mm	170 ml	10
42 103 10	115 mm	65 mm	320 ml	10
42 103 12	140 mm	80 mm	600 ml	10
42 103 14	190 mm	100 mm	1500 ml	4

Information on porcelain

The laboratory porcelain has a low thermal expansion coefficient and therefore, a high resistance against thermal shocks. Because of its high mechanical solidity it is resistant against all kinds of chemical influences.

Max. operating temperature: glazed 1100 °C
unglazed 1350 °C

Acid resistance:: 99.99 %

Alkali resistance:: 99.96 %

Water absorption:: 0 %

Specific gravity: 2.3 to 2.5 g/cm³

The characteristics of laboratory porcelain as well as the measurements of the products are according to all current standards and meet the latest recommendations of ISO.



▶ This arrow indicates products that are usually available on short notice.

Evaporating dishes

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- maximum operating temperature: 1100 °C
- glazed inside
- with spout



Cat. No.	Diameter	Height	Capacity	Unit
Flat bottom				
▶ 68 304 01	54 mm	22 mm	22 ml	30
▶ 68 304 03	70 mm	30 mm	62 ml	30
▶ 68 304 08	86 mm	33 mm	93 ml	30
▶ 68 304 13	98 mm	40 mm	154 ml	20
▶ 68 304 16	112 mm	50 mm	265 ml	20
▶ 68 304 20	126 mm	53 mm	330 ml	20
▶ 68 304 26	151 mm	63 mm	620 ml	10
▶ 68 304 32	195 mm	74 mm	1200 ml	10
▶ 68 304 33	254 mm	105 mm	3000 ml	10

Round bottom				
▶ 68 306 10	51 mm	24 mm	24 ml	30
▶ 68 306 15	61 mm	28 mm	36 ml	30
▶ 68 306 20	77 mm	33 mm	72 ml	30
▶ 68 306 12	81 mm	38 mm	107 ml	30
▶ 68 306 16	94 mm	42 mm	140 ml	20
▶ 68 306 14	103 mm	45 mm	190 ml	20
▶ 68 306 04	112 mm	47 mm	232 ml	20
▶ 68 306 21	132 mm	55 mm	390 ml	10
▶ 68 306 17	148 mm	66 mm	590 ml	10
▶ 68 306 13	170 mm	74 mm	920 ml	10
▶ 68 306 18	180 mm	84 mm	1135 ml	10
▶ 68 306 11	202 mm	86 mm	1500 ml	10
▶ 68 306 22	320 mm	140 mm	6000 ml	10





Crucibles

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- maximum operating temperature: 1100 °C
- glazed
- with spout

Cat. No.	Diameter	Height	Capacity	Unit
Low form				
68 370 02	30 mm	19 mm	5 ml	50
▶ 68 370 05	35 mm	22 mm	10 ml	50
▶ 68 370 07	40 mm	25 mm	17 ml	50
▶ 68 370 09	45 mm	28 mm	21 ml	50
▶ 68 370 12	50 mm	32 mm	34 ml	50
▶ 68 370 15	60 mm	38 mm	62 ml	30
68 370 18	70 mm	44 mm	91 ml	30
Medium tall form				
▶ 68 371 05	35 mm	28 mm	12 ml	50
▶ 68 371 08	40 mm	32 mm	20 ml	50
▶ 68 371 12	45 mm	36 mm	30 ml	50
▶ 68 371 15	50 mm	40 mm	45 ml	50
▶ 68 371 19	60 mm	48 mm	80 ml	30
▶ 68 371 23	70 mm	56 mm	120 ml	30
Tall form				
▶ 68 372 07	30 mm	38 mm	15 ml	50
▶ 68 372 10	35 mm	44 mm	26 ml	50
▶ 68 372 12	40 mm	50 mm	35 ml	50
▶ 68 372 16	45 mm	56 mm	50 ml	50
▶ 68 372 17	50 mm	62 mm	72 ml	50
▶ 68 372 22	60 mm	75 mm	130 ml	30



Lids for crucibles

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- maximum operating temperature: 1100 °C
- glazed

Cat. No.	Ø Lid	For Ø crucible	Multipack
▶ 68 380 30	34 mm	30 mm	50
68 380 35	39 mm	35 mm	50
▶ 68 380 40	44 mm	40 mm	50
▶ 68 380 45	49 mm	45 mm	50
68 380 50	54 mm	50 mm	50
68 380 60	64 mm	60 mm	30
68 380 70	74 mm	70 mm	30

▶ This arrow indicates products that are usually available on short notice.

Mortars

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- with spout
- pestles are not included. Please order separately.

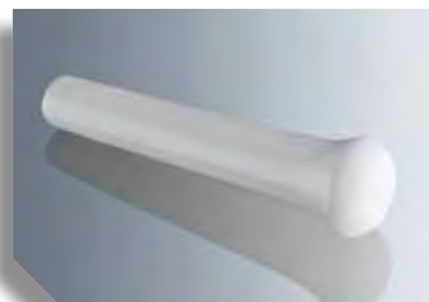


Cat. No.	Diameter	Height inside	Capacity	Unit
Glazed outside, rough inside				
▶ 68 351 05	70 mm	37 mm	30 ml	30
▶ 68 351 07	81 mm	42 mm	50 ml	30
▶ 68 351 09	91 mm	46 mm	75 ml	30
▶ 68 351 12	100 mm	60 mm	110 ml	30
68 351 13	113 mm	50 mm	150 ml	30
▶ 68 351 16	125 mm	64 mm	220 ml	10
▶ 68 351 18	144 mm	71 mm	325 ml	10
▶ 68 351 21	163 mm	82 mm	500 ml	10
68 351 23	183 mm	90 mm	730 ml	10
▶ 68 351 26	215 mm	104 mm	1135 ml	2
Glazed inside and outside				
68 350 05	70 mm	37 mm	30 ml	30
▶ 68 350 07	81 mm	42 mm	50 ml	30
68 350 09	91 mm	46 mm	75 ml	30
▶ 68 350 12	100 mm	50 mm	110 ml	30
68 350 13	113 mm	56 mm	150 ml	30
▶ 68 350 16	125 mm	64 mm	220 ml	10
▶ 68 350 18	144 mm	71 mm	325 ml	10
68 350 21	163 mm	82 mm	500 ml	10
68 350 23	183 mm	90 mm	730 ml	10
68 350 26	215 mm	104 mm	1135 ml	2

Pestles

- made of porcelain
- very good chemical resistance
- with rough surface at head

Cat. No.	Diameter	Length	For mortars with Ø
▶ 68 360 01	23 mm	84 mm	70 + 81 + 91 mm
▶ 68 360 03	26 mm	103 mm	100 + 113 mm
▶ 68 360 06	37 mm	132 mm	125 + 144 mm
▶ 68 360 09	44 mm	158 mm	163 mm
▶ 68 360 14	58 mm	210 mm	183 mm
▶ 68 360 19	73 mm	255 mm	215 mm





Annealing dishes

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- maximum operating temperature: 1100 °C
- glazed
- low form
- with spout

Cat. No.	Capacity	Diameter	Height	Unit
68 305 03	20 ml	60 mm	14 mm	50
68 305 06	28 ml	70 mm	15 mm	30
68 305 10	55 ml	80 mm	20 mm	30
68 305 15	110 ml	100 mm	25 mm	20
68 305 19	250 ml	130 mm	30 mm	20



Combustion boats

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- maximum operating temperature: 1350 °C
- unglazed
- with loop

Cat. No.	Length x Width x Height	Unit
68 368 01	90 x 14 x 8 mm	100



Funnels acc. to Buechner

- made of porcelain
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks

Cat. No.	Ø Filter	Ø Holes	Total height	Unit
▶ 68 315 39	45 mm	1.0 mm	67 mm	20
▶ 68 315 40	55 mm	1.0 mm	94 mm	10
▶ 68 315 41	70 mm	1.0 mm	99 mm	10
▶ 68 315 42	90 mm	1.5 mm	111 mm	10
▶ 68 315 43	110 mm	1.5 mm	132 mm	10
68 315 44	125 mm	2.0 mm	137 mm	10
68 315 45	150 mm	2.0 mm	155 mm	4
68 315 46	185 mm	2.0 mm	191 mm	4

▶ This arrow indicates products that are usually available on short notice.



Glass beads

Glass beads are used for mixing or milling. The smaller the beads and the higher their quantity the more intense is the mixing or milling.

- made of soda lime glass
- solid

Cat. No.	Diameter	Unit
In poly bag of 1 kg each		
▶ 49 010 01	1 mm	1
▶ 49 010 02	2 mm	1
▶ 49 010 03	3 mm	1
▶ 49 010 04	4 mm	1
▶ 49 010 05	5 mm	1
▶ 49 010 06	6 mm	1
49 010 07	7 mm	1
49 010 08	8 mm	1
49 010 10	10 mm	1
In sack of 25 kg each		
▶ 49 040 03	3 mm	25
49 040 04	4 mm	25
49 040 05	5 mm	25
49 040 06	6 mm	25



Weighing bottles

- made of borosilicate glass 3.3
- in compliance with DIN 12 605
- very good chemical resistance
- minimal thermal expansion
- high resistance to thermal shocks
- with interchangeable cover with standard ground joint
- with frosted marking area

Cat. No.	Height	Diameter	Capacity	Unit
Low form				
▶ 45 000 00	30 mm	35 mm	15 ml	10
▶ 45 000 10	30 mm	50 mm	30 ml	10
45 000 20	30 mm	80 mm	80 ml	10
Tall form				
▶ 45 010 30	40 mm	25 mm	10 ml	10
▶ 45 010 40	50 mm	30 mm	20 ml	10
▶ 45 010 50	70 mm	35 mm	45 ml	10
▶ 45 010 70	80 mm	40 mm	70 ml	10

Burners acc. to Bunsen

- with air regulation
- burner comes with needle valve for selection of gas type
- suitable for propane and natural gas

Cat. No.

Unit

66 090 07

1



Burners acc. to Teclu

- with air regulation
- burner comes with needle valve for selection of gas type
- suitable for propane and natural gas

Cat. No.

Unit

66 090 08

1





BETTER SYNDICATE CO., LTD.
248,250,252,254,256 ,Soi Ekkachai 64/5,
Ekkachai Rd., Khlongbangphran.,
Bangbon, Bangkok 10150

Email : info@bettersyndicate.co.th
Phone Number : 02-416-6686, 02-416-6687

WWW.BETTERSINDICATE.CO.TH