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Life Science

Research – and even routine applications – in the biosciences are unimaginable today without high quality plastic consumables. Increasingly sensitive detection methods rely on ever higher quality from lab disposables.

In addition to pipette tips, filter tips, microcentrifuge tubes and PD-Tips, BRAND Life Science also provides a variety of other high-performance products for PCR, storage, immunology and cell culture technology.





(Foto © Fraunhofer Relatei Kötzig)

Life Science products

Quality is our highest priority – for reliable analyses and reproducible results

It is hard to imagine carrying out analyses in the life sciences field these days without using high-quality disposables. For almost 25 years, BRAND has offered high-performance plastic products for various applications. We start by asking users around the world for input on product details, and then select raw materials and design injection-molding tools to ensure the highest product performance. Finally, the entire manufacturing process is strictly controlled, with quality assurance testing in accredited internal and external laboratories.

Starting materials

Sensitive applications, such as enzyme tests, PCR or DNA purification, require plastic disposable products of the highest quality. The proper selection of raw materials is a significant step in the manufacture of high-quality products. Over many years, polypropylene and polystyrene have earned their place as preferred materials for life science consumables. These materials often come into direct contact with expensive reagents and valuable samples.

For manufacturing pipette tips, BRAND uses specially selected PP types, free from the additives di-(2-hydroxyethyl) methyl-dodecyl-

ammonium (DiHEMDA) and 9-octadecanamide (oleamide). Both of these additives are frequently found in PP granules, and can interfere with biological tests, leading to spurious results*.

The starting materials for life science products are carefully selected by BRAND so that substances that can dissolve out of the raw material (leachables), which could affect the results of biological tests, are reduced to the minimum necessary for processing. Mold release agents, such as stearates and erucic acid amide, are not used in the production process.

Advantages of PP

■ High resistance to chemicals

Deep-well plates and microplates can be used with DMSO and other aggressive chemicals.

■ Good temperature resistance

Containers remain stable even at high temperatures; these products are generally autoclavable at 121 °C (2 bar), acc. DIN EN 285.

■ Minimal retention

PCR vessels, micro tubes and tips have no residual wetting and the material is biologically inert – no adhesion of biomolecules to the surfaces.

Advantages of PS

■ Good optical characteristics

Colorimetric tests like ELISA and microanalyses can be carried out with PS microplates.

■ Easily modifiable surface

Physiochemical treatments can modify the surface so as to be suitable for applications in cell culture or immuno-analytics.

* G. R. McDonald, A. L. Hudson, S. M. J. Dunn, H. You, G. B. Baker, R. M. Whittall, J. W. Martin, A. Jha, D. E. Edmondson, A. Holt (2008). Bioactive Contaminants Leach from Disposable Laboratory Plasticware. Science, 322 (5903), 917-917.

Cleanroom production

BRAND disposable items for the life sciences are produced using the most advanced cleanroom techniques in one of the world's largest cleanrooms for laboratory disposable items. Continuous cleanroom monitoring, together with precise control of environmental conditions, ensures a high level of temperature stability over the entire production area. This uniformity, together with quality testing of the final product by batch, guarantees the consistently high quality of life science products from BRAND.

Depending on the desired usage environment for the final product, cleanrooms according to ISO 14644-1 (Classes 5, 7 and 8) are available for manufacturing.



Surface modification

To produce optimal properties, surface modification using various physical and chemical methods is required for the products used in many life sciences applications.

Depending on the modification conditions employed, starting materials can be customized, e.g., with either hydrophilic or hydrophobic surfaces. To take a specific case, PS surfaces can either be made hydrophobic so that membrane proteins can bind, or hydrophilic to enable cell growth.

As exemplified by BRAND Ultra Low Retention tips, even PP surfaces can be modified to be as hydrophobic as PTFE, and such a material will not be wetted by liquids in which the surface tension has been reduced through the use of detergents.

Surface	Surface tension
BRAND® PP Ultra Low Retention	9 mN/m
PTFE	19 mN/m
Silicone	21.5 mN/m
Untreated PP	30 mN/m
Water	72 mN/m



Internal quality controls and independent laboratory tests

All products are subjected to a number of optical and functional tests before they are tested for molecular-biological contaminants. For example, PCR products are tested for evaporation losses and PCR plates are subjected to stringent vacuum tests to ensure that the systems satisfy your highest expectations. After the disposable items have successfully completed this internal process, the products are examined by an independent accredited laboratory. Sensitive detection methods are used to ensure that the products, depending on the intended use, contain no DNA, DNase, RNase, endotoxins or ATP.





The proper quality grade for every application

The right quality grade should be used in each application. Consequently, BRAND offers a range of quality grades so that the optimal one is always available.

	sterile acc. ISO 11 137	free of DNA	free of RNase	free of endotoxins	free of ATP	free of cytotoxic substances acc. ISO 10 993
Pipette tips and filter tips standard, racked		✓	✓	✓	✓	
Pipette tips and filter tips BIO-CERT®	✓	✓	✓	✓	✓	
PD-Tips sterile/endotoxin-free	✓			✓		
PD-Tips BIO-CERT®	✓	✓	✓	✓	✓	
Microcentrifuge tubes sterile BIO-CERT®	✓	✓	✓	✓	✓	
Microcentrifuge tubes with lid closure		✓	✓	✓		
Micro tubes with screw cap, sterile	✓	✓	✓	✓		✓
PCR products		✓	✓	✓		
Deep-well plates		✓	✓	✓		
Cryogenic tubes	✓	✓	✓	✓		✓
BRANDplates® standard		✓	✓	✓		✓
BRANDplates® sterile	✓	✓	✓	✓		✓
UV-Cuvettes micro		✓	✓	✓		

BIO-CERT®

BIO-CERT® products correspond to the highest quality grade. They are sterile, free from DNA, RNases, endotoxins and ATP.

Sterility

Sterility means being free of living organisms. BRAND products are sterilized with beta radiation according to ISO 11 137 and the AAMI Guidelines. The radiation dose is at least 12.1 kGy. The inertGrade™ microplates are an exception; these are sterilized with ethylene oxide due to their special surface characteristics.

An SAL (sterility assurance level) of 10^{-6} is guaranteed, meaning no more than one part in 1×10^6 is contaminated! This level of sterility complies with the requirements of USP 29 and the Ph.Eur.

DNA and RNases

DNA (deoxyribonucleic acid) is the carrier of genetic information. RNases (ribonucleases) are enzymes that can degrade ribonucleic acid (RNA) through hydrolysis. Ribonucleic acids serve as transmitters of genetic information. RNases are ubiquitous and extremely stable. To protect the RNA molecules from undergoing enzymatic degradation, one must be absolutely certain that plastic items are free from RNases. Products from BRAND are free from DNA ($< 4 \times 10^{-14}$ g/tip = 40 fg), to avoid false positive results, e.g., in PCR*, and free from RNases ($< 8.6 \times 10^{-15}$ g/tip = 8.6 fg), to make it possible to work with RNA.

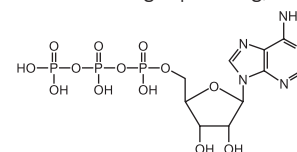
* The Polymerase Chain Reaction (PCR) is covered by international patents. Use of the PCR process may require a license.

Endotoxins

Endotoxins refer to the components present in the outer membranes of Gram-negative bacteria. These components are lipopolysaccharides that are released when cells are destroyed. Endotoxins make up the largest group of pyrogens, and these two are often falsely believed to be synonymous. Depending on the concentration, these heat-stable substances lead to fever, circulatory collapse, shock, etc., and can be fatal in very high doses. The concentration of endotoxins in products from BRAND is determined by the kinetic-turbidimetric limulus amebocyte lysate (LAL) test. The detection limit is 0.01 EU/ml. This corresponds to an endotoxin concentration of $< 1 \times 10^{-12}$ g/tip (1 pg/tip). Freedom from endotoxins is required in pharmaceutical manufacture and cell culture.

ATP

Adenosine triphosphate is the energy source for every living cell. ATP is an energy-rich, transportable molecule. It is an indicator for living cells, and can serve as a marker for detecting viable bacteria, yeasts, and human cells, etc. Products from BRAND are free of ATP (ATP concentration $< 1 \times 10^{-15}$ g/tip = 1 fg) and thus are especially suitable for luminescence measurements, e.g., those employed in the hygiene monitoring field according to the HACCP concept.



Cytotoxicity

Various substances are capable of damaging cells. Extracts from BRANDplates® for cell culture are checked for their effects on cell cultures using an in vitro cytotoxicity test. BRANDplates® are free from cytotoxic substances according to DIN EN ISO 10 993.

Microcentrifuge Tubes

Quality features

- Uniform lid thickness ensures trouble-free piercing.
- Consistent wall thickness.
- Tight fitting attached lid provides leak-free seal, yet reopens easily.
- High clarity.
- Autoclavable at 121 °C (2 bar), acc. DIN EN 285



Relative Centrifugal Force (RCF)

Quoted RCF (g) values are determined with 20 °C water being centrifuged for 20 min.

Actual stress limit may be affected by conditions such as rotor positioning, reagents, run time and temperature. Specified RCF values should only be used as a comparative guide (DIN 58970).

To calculate RCF:

$$RCF = 1.118 \cdot r \cdot \left(\frac{n}{1000}\right)^2$$

Example:

Rotation radius **r = 180 mm**
(vertical distance between center of rotation axis and bottom of centrifuge tube)

Speed **n = 6000 min⁻¹**

$$RCF = 1.118 \cdot 180 \cdot \left(\frac{6000}{1000}\right)^2$$

$$= 7245$$





Microcentrifuge tubes

0.5 ml, with lid

PP.

RCF max.	Lid membrane Ø mm	Thickness lid membrane mm	Outer-Ø mm	Height mm
10000 (at 20 °C, t_e 20 min)	5.4	0.3	7.9	31.4

Pack of 1000

(1 bag).

Cat. No.	7805 07
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1.5 ml, with lid

PP. Frosted marking area, subdivisions for approximate volume determination.
CE-marked according to IVD-Directive 98/79 EC.

RCF max.	Lid membrane Ø mm	Thickness lid membrane mm	Outer-Ø mm	Height mm
20000 (at 20 °C, t_e 20 min)	8.5	0.3	10.75	40.8

Pack of 500

(1 bag).

Cat. No.	7805 00
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Pack of 3000

(6 bags of 500).

Cat. No.	7805 02
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BIO-CERT®

Sterile and free of endotoxins, DNA,
RNase and ATP.
Pack of 450 (30 blister packs of 15 tubes).

Cat. No.	7804 00
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Colored

Pack of 500.

Color	Cat. No.
yellow	7805 21
blue	7805 22
green	7805 23
orange	7805 24
amber*	7805 25

* The amber-colored microcentrifuge tubes are particularly suitable for light-sensitive reagents.

0.5 ml, 1.5 ml and 2.0 ml, with lid closure

NEW!

PP. RNase-, DNA- and endotoxin-free. Lid closure to achieve especially effective sealing and prevent accidental opening! Frosted marking area, subdivisions for approximate volume determination.

Volume ml	RCF max.	Outer-Ø mm	Height mm	Pack of	Cat. No.
0.5	30 000 (at -5 °C, t_b 20 min)	10.0	30.0	500	7805 36
1.5	30 000 (at -5 °C, t_b 20 min)	12.8	38.8	1000	7805 40
2.0	30 000 (at -5 °C, t_b 20 min)	12.8	40.0	500	7805 46



lid closure

1.5 ml, without lid

PP.

RCF max.	Outer-Ø mm	Height mm
6000 (at 20 °C, t_b 20 min)	11	39.5

Pack of 12 000
(6 bags of 2000).

Cat. No.	7805 05
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Microcentrifuge tube racks and adapters can be found on page 125.

2 ml, with lid

PP. Frosted marking area, subdivisions for approximate volume determination.

RCF max.	Lid membrane Ø mm	Thickness lid membrane mm	Outer-Ø mm	Height mm
20000 (at 20 °C, t_b 20 min)	8.5	0.3	10.7	41.15

Pack of 500
(1 bag).

Cat. No.	7805 50
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Micro tubes with screw caps

Screw cap micro tubes are ideal for storage of serums and blood samples, and for boiling, centrifugation, etc.



Versatile

Micro tubes with screw caps are available in different formats, designs and quality grades. Micro tubes of PP and screw caps of PE or PP are precisely matched to ensure a secure seal.



with sealing cone

Micro tubes with sealing cone are particularly suitable for the storage of sensitive samples, since they avoid the risk of contamination from existing silicone seals. These tubes are not autoclavable.



with silicone seal

Micro tubes are sealed extremely well with silicone seals, without contact between the sample and the sealing ring. The containers are suitable for the storage of samples in the gaseous (vapor) phase of liquid nitrogen. Micro tubes with silicone seals are autoclavable at 121 °C (2 bar), acc. DIN EN 285.



with silicone seal, tamper-evident screw cap

The tamper-evident screw cap guarantees the user an uncontaminated sample. A visible ring acts as an anti-tamper seal, which breaks when the cap is first opened. The micro tubes have a silicone seal, and are suitable for the storage of samples in the gaseous (vapor) phase of liquid nitrogen. The micro tubes with tamper-evident screw cap are autoclavable at 121 °C (2 bar), acc. DIN EN 285.

Micro tubes

attached screw cap with sealing cone, non-sterile

PP, ungraduated, screw cap PE. Operating range: -90 °C to +100 °C.
Pack of 1000.

Capacity ml	Description	Cat. No.
0.5	self-standing	7807 00
1.5	self-standing	7807 01
1.5	round-bottom	7807 02
2	self-standing	7807 03
2	round-bottom	7807 04

Colored screw caps and colored cap inserts are available separately (page 124).



attached screw cap with silicone seal, non-sterile

PP, graduated, screw cap PP. With frosted marking area.
Operating range: -196 °C to +121 °C. Pack of 1000.

Capacity ml	Subdiv. up to ml	Description	Cat. No.
0.5*	–	self-standing	7807 10
1.5	1	self-standing	7807 11
1.5	1	round-bottom	7807 12
2	1.2	self-standing	7807 13
2	1.2	round-bottom	7807 14

* ungraduated



bulk screw cap with silicone seal, sterile

PP, graduated, screw cap PP. With frosted marking area. Operating range: -196 °C to +121 °C. DNA-, DNase-, and RNase-free, endotoxin-free, non-mutagenic, non-toxic.
Pack of 500.

Capacity ml	Description	sterile with cap Cat. No.
0.5*	self-standing	7807 50
1.5	self-standing	7807 51
1.5	round-bottom	7807 52
2	self-standing	7807 53
2	round-bottom	7807 54

* ungraduated



without screw cap, non-sterile

PP, graduated. With frosted marking area. Operating range: -196 °C to +121 °C.
Pack of 1000.

Capacity ml	Description	non-sterile without cap Cat. No.
0.5*	self-standing	7807 30
1.5	self-standing	7807 31
1.5	round-bottom	7807 32
2	self-standing	7807 33
2	round-bottom	7807 34

* ungraduated





Micro tubes

with tamper-evident screw cap, with silicone seal, sterile

PP, graduated. With frosted marking area. Operating range: -196 °C to +121 °C. DNA, DNase, and RNase-free, endotoxin-free, non-mutagenic, non-toxic. Pack of 500.

Capacity ml	Description	Cat. No.
0.5*	self-standing	7807 55
1.5	self-standing	7807 56
1.5	round-bottom	7807 57
2	self-standing	7807 58
2	round-bottom	7807 59

* ungraduated

without screw cap, non-sterile

PP, ungraduated. Operating range: -196 °C to +121 °C. Pack of 1000.

Capacity ml	Description	Cat. No.
0.5	self-standing	7807 60
1.5	self-standing	7807 61
1.5	round-bottom	7807 62
2	self-standing	7807 63
2	round-bottom	7807 64

Caps, colored



Screw caps with silicone seal, for micro tubes 7807 30 - 7807 34, 7807 50 - 7807 54

PP. Applications: -196 °C to +121 °C. Pack of 1000.

Cap Color	Cat. No.
white	7807 40
blue	7807 41
red	7807 42
green	7807 43
yellow	7807 44



Cap inserts for micro tubes with attached or bulk screw caps

PP. Applications: -196 °C to +121 °C. Pack of 500.

Cap insert Color	Cat. No.
white	7807 20
blue	7807 21
red	7807 22
green	7807 23
yellow	7807 24



Tamper-evident screw caps with silicone seal, for micro tubes 7807 60 - 7807 64

PP. Applications: -196 °C to +121 °C. Pack of 1000.

Cap Color	Cat. No.
transparent	7807 70
blue	7807 71
green	7807 72
purple	7807 73
red	7807 74
yellow	7807 75

Accessories microcentrifuge tubes

Microcentrifuge tube rack

PP, grey. Numbered positions for 20 microcentrifuge tubes, 1.5 ml.
Autoclavable at 121 °C (2 bar), acc. DIN EN 285.
Pack of 1.

Positions	Length mm	Width mm	Height mm	Cat. No.
20	210	70	37	7806 05



0.5 ml adapter for Cat. No. 7806 05

PP. Microcentrifuge tube racks can be equipped with inserts to accommodate 0.5 ml microcentrifuge tubes. Easy permanent assembly. Pack of 20.

Cat. No.	7806 08
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Microcentrifuge tube racks

PP. Stackable racks with alphanumerical positions. Operating temperature -20 °C to +90 °C. Autoclavable at 121 °C (2 bar), acc. DIN EN 285. Density 1.2 g/cm³. Will not float in waterbath. Racks are supplied in two-pieces (Ø 11 mm, for microcentrifuge tubes) or three-pieces (Ø 13 mm, for cryogenic tubes) for convenient and permanent assembly. L x W x H in mm: 265 x 126 x 38. Pack of 5.

For Ø up to mm	Positions	white Cat. No.	blue Cat. No.	red Cat. No.	yellow Cat. No.
11	8 x 16	43410 50	43410 51	43410 52	43410 53
13	6 x 14	43410 00	43410 01	43410 02	43410 03



Mini cooler

PC. Mini coolers are designed to protect a wide range of solutions (enzymes, DNA, RNA, cell suspensions) by helping to maintain freezer temperatures on the lab bench. Durable polycarbonate filled with non-toxic gel. Mini coolers hold twelve 0.5 ml to 2.0 ml tubes.

Bench temp. maintained	Time held	Color	Cat. No.
0 °C	60 min.	red	1149 30
-20 °C	60 min.	yellow	1149 35
-70 °C	45 min.	white	1149 40





PCR

Tubes, strips, plates and accessories

BRAND has significantly expanded its product range of extra-thin-wall disposable products, which were specially developed to satisfy the demands of PCR applications, particularly in 96-well PCR plates. Single tubes, strips of 8 and 12, and, for high sample throughput, PCR plates in 24-well, 48-well, 96-well, and 384-well formats are available. Thus, there is an optimal product for every application.

Features

- Suitable for use in common thermal cyclers.
- PP, extra-thin uniform wall thicknesses to provide the optimal thermal transfer and short cycle times.
- 96-well PCR plates with blue alphanumeric code and cut corner marking
- Highly transparent flat covers optimally suited for qPCR
- DNase-, DNA- and RNase-free
- Autoclavable at 121 °C (2 bar), acc. DIN EN 285

Real-Time PCR?

q!PCR outstanding!

q!PCR PCR Plates:

Plates that fit in quantitative Real-Time thermal cyclers, also available in white

q!PCR PCR Tubes:

Tubes with highly transparent caps for sensitive detection of fluorescence signals

q!PCR PCR Seals:

Seals, highly transparent for sensitive detection of fluorescence signals

Note!  Autoclaves can be a source of contamination for disposable products.

The Polymerase Chain Reaction (PCR) is covered by international patents. Use of the PCR process may require a license.

Single PCR tubes

0.2 ml and 0.5 ml PCR tubes with attached caps are compatible with leading thermal cyclers with heated lids. The caps are easy to open and close without tools, yet ensure a tight fit to reduce sample evaporation. The various colors of the PCR tubes allow fast sample classification.

0.2 ml and 0.5 ml

with attached caps

PP. Pack of 1000.

Capacity ml	Description	Color	Cat. No.
0.2	domed cap	clear	7813 00
0.2	flat cap	clear	7813 05
	flat cap	rose	7813 01
	flat cap	yellow	7813 02
	flat cap	green	7813 03
	flat cap	blue	7813 04
0.5	flat cap	clear	7813 10
	flat cap	rose	7813 11
	flat cap	yellow	7813 12
	flat cap	green	7813 13
	flat cap	blue	7813 14



domed cap



flat cap



PCR Strips

White PCR products offer significantly better results for qPCR, and are specifically recommended by many thermal cycler manufacturers.



Strips of 8

with detached cap strips

PP. 8 connected 0.2 ml tubes. Separate, domed or flat caps are available in strips of 8. They are easy to open and close without tools. The tubes have a holding strap at one end, and the cover strips on each cap have a small lip on the side for careful, contamination-free opening.

Pack of 125 strips, 1000 vessels or caps, total.

Capacity ml	Color	Strips of 8 PCR tubes Cat. No.	Strips of 8 PCR caps domed Cat. No.	Strips of 8 PCR caps flat* Cat. No.
0.2	clear	7813 20	7813 40	7813 34
	rose	7813 21	7813 41	–
	yellow	7813 22	7813 42	–
	green	7813 23	7813 43	–
	blue	7813 24	7813 44	–
	white	7813 25	–	–

Pack of 250 strips each, 2000 tubes and 2000 caps, total.

Capacity ml	Color	Strips of 8 PCR tubes and strips of 8 PCR caps domed Cat. No.	Strips of 8 PCR tubes and strips of 8 PCR caps flat* Cat. No.
0.2	clear	7813 27	7813 26

* flat caps suitable for Real-Time PCR

NEW!



NEW!

Strips of 8 PCR tubes

with attached flat individual caps

PP. 8 connected 0.2 ml or 0.15 ml tubes with attached, flat individual caps – ideal protection against contamination. The highly transparent cap makes them ideal for real-time PCR. Available in standard and low profile versions. Pack of 120 Strips, 960 vessels total.

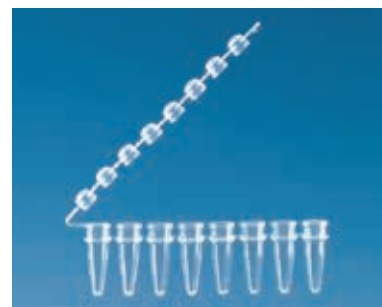
Description	Capacity ml	Color	Pack of	Cat. No.
Standard	0.2	clear	120 strips per bag	7813 32
Standard	0.2	white	120 strips per bag	7813 16
Low profile	0.15	clear	120 strips per bag	7813 33
Low profile	0.15	white	120 strips per bag	7813 17

Strips of 8 PCR tubes

with attached cap strips

PP. 8 connected 0.2 ml tubes with attached cap strips. Domed caps facilitate one-handed operation. Pack of 125 strips, 1000 vessels, total.

Cat. No.	7813 30
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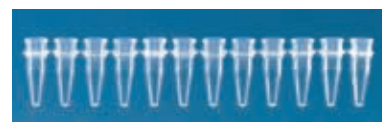
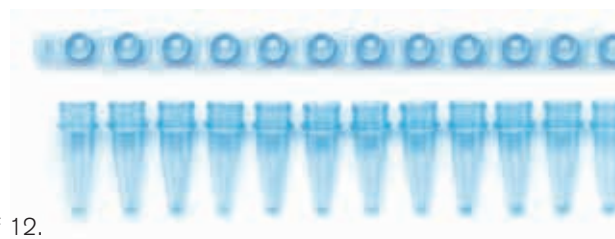


Strips of 12

with detached cap strips

PP. 12 connected 0.2 ml tubes. The separate domed caps are available in strips of 12. They ensure a secure seal. Pack of 125 strips, 1500 vessels or caps, total.

Capacity ml	Color	Strips of 12 PCR tubes Cat. No.	Strips of 12 PCR caps Cat. No.
0.2	clear	7812 80	7812 90
	rose	7812 81	7812 91
	yellow	7812 82	7812 92
	green	7812 83	7812 93
	blue	7812 84	7812 94



q!PCR 24-well and 48-well PCR Plates

These plates reduce material costs and allow work on a compact PCR plate even with small sample throughputs.

24-well, non-skirted

PP. 0.2 ml wells. Suitable for most commercially available thermal cyclers. A detailed compatibility table can be found on page 134.

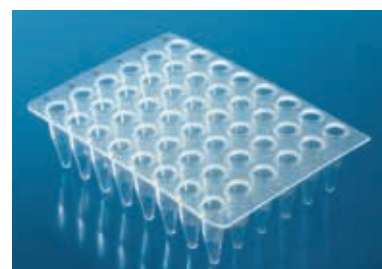
Description	Color	Pack of	Cat. No.
Standard profile	clear	40 (5 plates per bag)	7814 11
Standard profile	white	40 (5 plates per bag)	7814 12

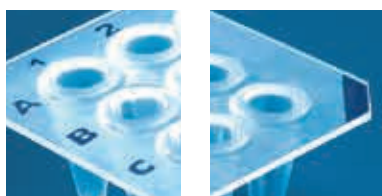


48-well, non-skirted

PP. 0.2 ml wells. Suitable for most commercially available thermal cyclers. A detailed compatibility table can be found on page 134.

Description	Color	Pack of	Cat. No.
Standard profile	clear	20 (5 plates per bag)	7814 15
Standard profile	white	20 (5 plates per bag)	7814 16



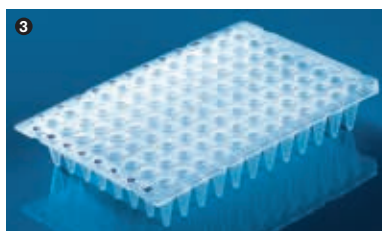
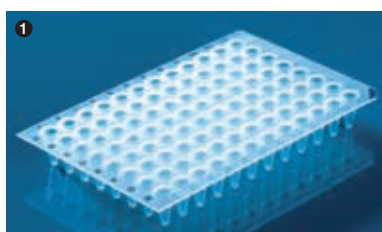


qPCR 96-well PCR Plates

The ultra thin-walled PCR plate design facilitates constant, rapid and precise heat transfer. The smooth vessel interior minimizes the binding of enzymes and nucleic acid to the walls. The rim of the wells are designed to protect against cross-contamination, allowing a reliable seal with the sealing mats tailored to the plates.

The use of Real-Time PCR (qPCR) is becoming increasingly widespread. In particular, the direct quantification of the DNA formed can be achieved by the use of fluorescence measurement. White PCR products by BRAND offer significantly better results in this application than transparent tubes. The different products in this line are uniformly colored with TiO₂ (titanium dioxide), so that in combination with the smooth surfaces, the optimum reflection of the fluorescence signal is provided.

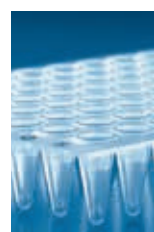
The new 96-well PCR plates from BRAND offer features such as blue alphanumeric coding and cut corner design to facilitate orientation.



NEW!

96-well, non-skirted

PP. 0.2 ml or 0.15 ml wells. 96-well non-skirted PCR plates are suitable for most commercially available thermal cyclers. A detailed compatibility table can be found on page 134.



Low profile



Standard profile



Standard profile, elevated rim

Description	Color	Cut corner	Pack of	Cat. No.
① Low profile	clear	H12	50 (5 plates per bag)	7813 66
Low profile	white	H12	50 (5 plates per bag)	7813 67
② Standard profile	clear	A12	50 (5 plates per bag)	7813 68
Standard profile	white	A12	50 (5 plates per bag)	7813 69
③ Standard profile, elevated rim	clear	H12	50 (5 plates per bag)	7813 50
Standard profile, elevated rim	white	H12	50 (5 plates per bag)	7813 54

Please note the **thermal cycler compatibility table** on page 134.

96-well PCR plates in standard profile can be sealed with PCR caps (strips of 8), Cat. No. 7813 40 - 7813 44 and 7813 34 page 128.



Low profile



Low profile,
raised skirt



Standard profile



Standard profile,
elevated rim

NEW!

96-well, semi-skirted

PP. 0.2 ml or 0.15 ml wells. 96-well semi-skirted PCR plates can easily be labeled or tagged with a barcode. A detailed compatibility table can be found on page 134.

Description	Color	Cut corner	Pack of	Cat. No.
1 Low profile	clear	A12	50 (5 plates per bag)	7813 71
Low profile	white	A12	50 (5 plates per bag)	7813 72
2 Low profile, raised skirt	clear	A1	50 (5 plates per bag)	7813 73
Low profile, raised skirt	white	A1	50 (5 plates per bag)	7813 74
3 Standard profile	clear	A12	50 (5 plates per bag)	7813 75
Standard profile	white	A12	50 (5 plates per bag)	7813 76
4 Standard profile, elevated rim	clear	H12	50 (5 plates per bag)	7814 00
Standard profile, elevated rim	white	H12	50 (5 plates per bag)	7813 57

96-well, semi-skirted

NEW!

Suitable for Roche® LightCycler® 480 and other thermal cyclers

PP. 0.15 ml wells. Semi-skirted. With black alphanumeric code.
Available with or without self-adhesive sealing film (polyester, high-transparent, for qPCR).

Description	Color	Cut corner	Pack of	Cat. No.
Low profile*	white	H12	50 (10 plates per bag)	7813 64
Low profile*	white	H12	50 (10 plates per bag) + 50 films for qPCR	7813 65

* black alphanumeric code, no additional markings on the cut corner.

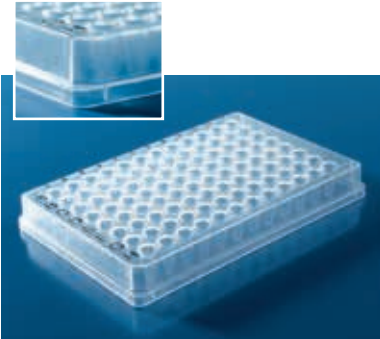
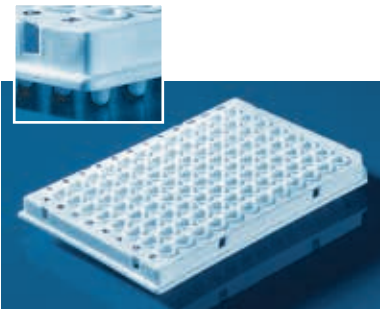
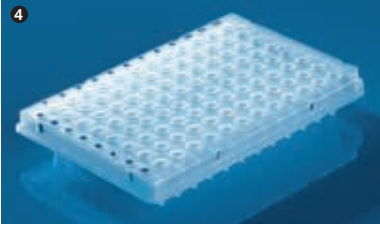
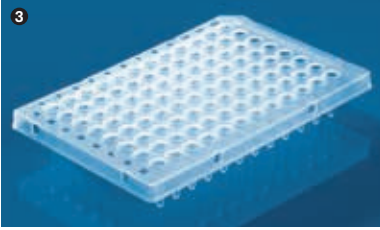
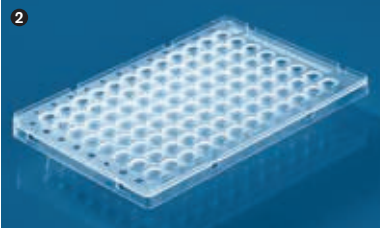
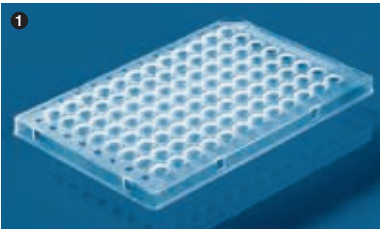
96-well, skirted

NEW!

PP. 0.15 ml wells. 96-well skirted PCR plates are especially rigid, and are optimally suited for use with automatic pipetting systems and for being transported. A detailed compatibility table can be found on page 134.

Description	Color	Cut corner	Pack of	Cat. No.
Low profile*	clear	H1	50 (10 plates per bag)	7813 77
Low profile*	white	H1	50 (10 plates per bag)	7813 78

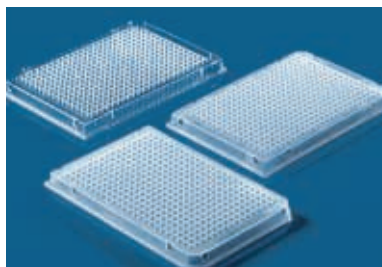
* black alphanumeric code, no additional markings on the cut corner.





384-well PCR Plates

384-well, skirted



PP. The 40 μ l wells can hold sample volumes of 2 μ l to 30 μ l. This helps to reduce reagent costs and shortens cycle times. The plates can be filled using multichannel pipettes or robotic systems. A detailed compatibility table can be found on page 134.

Description	Color	Cut corner	Pack of	Cat. No.
Skirted, PP	clear	A24, P24	50 (10 plates per bag)	7813 45
Skirted, PP	clear	A24	50 (10 plates per bag)	7813 47
Skirted, rigid plate	clear	A24	50 (10 plates per bag)	7813 48

384-well, skirted

Suitable for Roche® LightCycler® 480 and other thermal cyclers

PP. 0.03 ml tubes. The wells can hold sample volumes of 2 μ l to 30 μ l. This helps to reduce reagent costs and shortens cycle times. The plates can be filled using multichannel pipettes or robotic systems.

Description	Color	Cut corner	Pack of	Cat. No.
Skirted	white	A12, H12	50 (10 plates per bag)	7813 58

Please note the **thermal cycler compatibility table** on page 134.

Accessories PCR tubes

PCR-Box/-Rack

sorted by color (red, yellow, green, purple, blue)



PP. Suitable for sample preparation, for keeping and storing 0.2 ml single tubes, 8-strips, and 12-strips, and 96-well PCR plates. These racks can also be stacked without lids. Withstand temperatures from -80 to +121 °C. Pack of 5.

Cat. No.	7813 62
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PCR Mini cooler

with transparent lid



PP. For protecting samples from warming. The mini PCR cooler keeps samples at 4 °C for approximately 3 hours. The insulating gel changes from violet to pink at 7 °C. Suitable for 0.2 ml single tubes, 8-strips, and 12-strips, as well as 96-well PCR plates. Pack of 2.

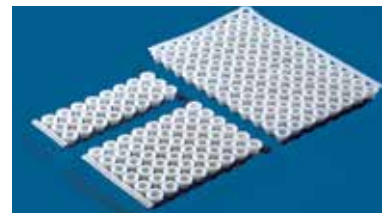
Cat. No.	7812 60
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PCR sealing mats

PCR sealing mats have been designed to fit BRAND PCR plates exactly and reduce evaporation losses by up to 75% compared to conventional systems. They are characterized by their high flexibility, tight sealing, autoclavability and are easily pierced by pipette tips.

24-, 48- and 96-well

Product	Material	Pack of	Cat. No.
24-well mat (for Cat. No. 7814 11)	TPE	10	7814 02
48-well mat (for Cat. No. 7814 15)	TPE	10	7814 03
96-well mat (for 96-well PCR plates)	TPE	5	7814 05



PCR sealing films, self-adhesive

In case the PCR plates need not only to be covered, but also securely sealed, self-adhesive sealing films are available. These film sheets can be easily applied on the plates and removed without the use of expensive equipment.

for ELISA, PCR

Polyester. Allows visual inspection. Temperature range -40 °C to +120 °C. Single film. Packs of 100 sheets.

Cat. No.	7813 90
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for ELISA, Real-Time PCR (qPCR)

Polyester. High-transparency. Allows visual inspection. Temperature range -20 °C to +120 °C. Single film. Packs of 100 sheets.

Cat. No.	7813 91	
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for storage, ELISA, PCR

PP. DMSO resistant. Allows visual inspection. Temperature range -80 °C to +120 °C. Single film. Pack of 100 sheets.

Cat. No.	7013 67
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Thermal Cycler Compatibility

One glance at the table will tell you which BRAND PCR plates are compatible with your thermal cycler. We are continuously updating the table with information from manufacturers and feedback from our customers. Ask for a free sample of our PCR plates to check compatibility with your thermal cycler (www.brand.de), with no obligation.

	non-skirted										semi-skirted				r.s.-s.*		skirted											
	7814 11	7814 12	7814 15	7814 16	7813 66	7813 67	7813 68	7813 69	7813 50	7813 54	7814 00	7813 57	7813 64	7813 71	7813 72	7813 75	7813 76	7813 73	7813 74	7813 77	7813 78	7813 45	7813 47	7813 48 rigid	7813 58			
White color		x		x		x		x		x		x	x		x		x		x		x	x				x		
Number of wells	24		48		96		96		96		96		96		96		96		96		96	384	384	384	384			
Standard well	x		x				x		x		x					x												
Low Profile well					x								x	x				x		x								
Cut corner					H12		A12		H12		H12		H12	A12		A12		A1		H1		A24 + P24	A24	A24	A24 + P24			
Agilent Technologies																												
AriaMx					•															•								
Analytik Jena																												
Flex Cycler² 96 Series							•		•		•					•												
Flex Cycler² Twin 48			•						•		•					•												
Speed Cycler² SPR							•		•		•					•												
qTower 2.0 und 2.2								•		•	•						•											
APPLIED BIOSYSTEMS®																												
2700	•		•				•		•		•					•						•	•	•	•			
3100	•		•				•		•							•							•	•				
3130	•		•				•		•							•							•	•				
3500							•									•							•	•				
3700	•		•				•		•							•						•	•	•				
3730/ 3730x	•		•				•		•							•							•	•				
9600	•		•				•		•		•					•							•	•				
9700	•		•				•		•		•					•						•	•	•				
9800 Fast																		•										
5700	•		•				•		•							•												
7000	•		•				•		•					•		•												
7300	•		•				•		•					•		•												
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7700	•		•				•		•					•		•												
7900 HT							•											•					•					
7500 Fast																		•										
Step One Plus																		•										
Veriti 0.2 ml																•												
Veriti 0.1 ml																		•										
ViiA™ 7					•													•										
AMERSHAM® Bioscience																												
MegaBace® 500																				•								
MegaBace® 1000																				•								
MegaBace® 4000																				•		•	•	•	•			
BECKMAN®																												
CEQ							•													•								
MegaBace® 4000																				•		•	•	•	•			
BIOMETRA® Analytik Jena AG																												
Uno	•		•		•		•		•		•					•				•								
Uno II	•		•		•		•		•		•					•					•	•	•	•	•			
T1 Thermal Cycler	•		•		•		•		•		•					•				•		•	•	•	•			
Tgradient	•		•		•		•		•		•					•				•		•	•	•	•			
Trobot	•		•		•		•		•		•					•				•		•	•	•	•			
BIORAD®/MJ RESEARCH®																												
CFX 96 Touch™					•															•								
CFX 96 Connect™					•															•								
CFX Automated System II																				•		•	•	•				
T100							•									•												
Genecycler							•									•												
C1000	•		•		•		•		•		•					•				•		•	•	•				
S100					•		•		•							•				•								
PTC-200 DNA-Engine	•		•		•		•		•		•					•				•		•	•	•	•			
PTC-220 DNA-Eng. Dyad	•		•		•		•		•		•					•				•		•	•	•	•			
PTC-221 Dyad-Disciple	•		•		•		•		•		•					•				•			•	•	•			
PTC-225 DNA-Tetrad	•		•		•		•		•							•				•		•	•	•	•			
PTC-240 DNA-Tetrad 2																•												
Base Station																				•								
iCycler	•		•				•		•							•				•								
MyCycler	•		•				•		•							•												
MyiQ	•		•				•		•											•					•			
iQ4							•									•				•								
iQ5	•		•				•		•							•				•								
CFX96					•		•													•								
Chromo 4					•		•									•				•								

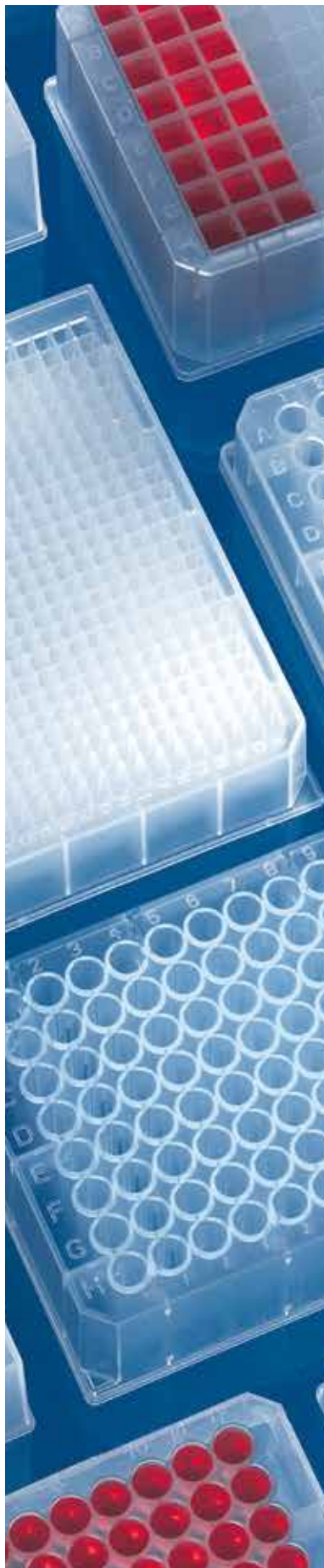
continued

continued	non-skirted										semi-skirted				r.s.-s.*		skirted									
	7814 11	7814 12	7814 15	7814 16	7813 66	7813 67	7813 68	7813 69	7813 50	7813 54	7814 00	7813 57	7813 64	7813 71	7813 72	7813 75	7813 76	7813 73	7813 74	7813 77	7813 78	7813 45	7813 47	7813 48 rigid	7813 58	
White color		x		x		x		x		x		x	x		x		x		x		x	x				x
Number of wells	24		48		96		96		96		96		96		96		96		96		96	384	384	384		384
Standard well	x		x				x		x		x					x										
Low Profile well					x								x	x				x		x						
Cut corner					H12		A12		H12		H12		H12		A12		A12		A1		H1	A24 + P24	A24	A24		A24 + P24
BIORAD®/MJ RESEARCH®																										
Opticon					•		•														•					
Opticon 2					•		•														•					
Opticon 4					•																•					
Corbett Research																										
Palm Cyclyer 96																•										
Palm Cyclyer 384							•																•	•		•
Eppendorf®																										
Mastercycler® Gradient	•		•				•		•		•						•				•					
Mastercycler® ep	•		•		•		•		•												•					
Mastercycler®					•		•										•				•					
Mastercycler® M384																						•		•		•
Mastercycler® ep Realplex						•		•									•		•		•					
Ericomp																										
Single Block	•		•		•		•		•							•										
Twin Block	•		•		•		•		•							•										
Power Block					•		•		•						•		•									
Delta Cyclyer	•		•		•		•		•						•		•									
Esco																										
Swift							•																			•
Flexi																										
Gene							•														•					•
Genius							•														•					
G-Storm																										
GS1/ GS4/ GSX					•		•								•	•										
Labnet																										
MultiGene™ OptiMax							•									•										
Thermo Hybaid																										
Multi Block System	•		•		•		•		•		•				•	•					•	•	•	•	•	•
Omnigene	•		•		•		•		•		•				•	•					•	•	•	•	•	•
Omn-E	•		•		•		•		•		•				•	•					•	•	•	•	•	•
PCR-Express	•		•		•		•		•		•				•	•					•	•	•	•	•	•
PCR-Sprint	–		–		•		•		–		–				•	•					•	•	•	•	•	•
pxe	•		•		•		•		•						•	•					•	•	•	•	•	•
px2	•		•		•		•		•						•	•					•	•	•	•	•	•
Touchdown	•		•		•		•		•		•				•	•					•	•	•	•	•	•
MWG®																										
Primus 96	•		•		•		•		•		•				•	•					•	•	•	•	•	•
Primus 384																•					•	•	•	•	•	•
The Q LifeCycler					•		•																			
PEQLAB®																										
PeqStar 96	•		•				•		•		•					•					•	•	•	•	•	•
Roche®																										
LightCycler® 480													•													•
STRATAGENE®																										
Robocycler	•		•				•		•		–					•					•	•	•	•	•	
Robocycler Gradient					•		•								•	•					•					
Mx 3000	•		•						•								•									
Mx 3000 P					•		•								•	•										
Mx 3005 P					•		•								•	•										
Mx 4000	•		•		•		•		•																	
TaKaRa®																										
TP2400																					•	•	•	•	•	
TP3000	•		•		•		•		•						•	•					•	•	•	•	•	
TECHNE®																										
TC-412	•		•		•		•		•		•				•	•					•	•	•	•	•	
Flexigene	•		•		•		•		•		•				•	•					•	•	•	•	•	•
Genius	•		•						•		•										•	•	•	•	•	
Genius Quad					•		•		•					•	•	•					•	•	•	•	•	
TC-512	•		•		•		•		•		•				•	•					•	•	•	•	•	•
Touchgene Gradient							•		•		•				•	•					•	•	•	•	•	•
Touchgene X					•												•				•					•
TC-3000X	•		•						•		–											–	–	–	–	
Quantica																										
Cyclogene					•		•							•	•						•					
TRANSGENOMIC®																										
Wave System																					•					•

• = compatible – = not compatible □ = no information

* r. s.-s. = raised skirt semi-skirted

Status as of: 1015

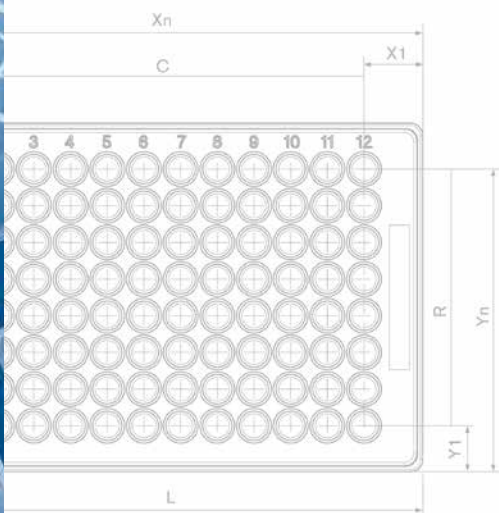


Sample Storage

BRAND has developed a number of disposable products of polypropylene and polystyrene especially for the storage of life science samples. These products are popular for applications including cell biology, molecular biology, drug discovery tests, and screening.

Features

- Polypropylene for high chemical resistance, e.g., DMSO, phenol, chloroform
- Autoclavable at 121 °C (2 bar), acc. DIN EN 285 (PP-plates)
- Optimal sample mixing and recovery using U-bottom wells
- Alphanumeric code and cut-away corner simplify sample identification and orientation
- Can be used with multichannel pipettes and automatic liquid handling systems from all leading manufacturers



Deep-well Plates

The most important application for deep-well plates is sample storage (e.g., in substance libraries). Deep-well plates are also an important component in numerous other applications, e.g., cultivation of microorganisms, extraction of nucleic acids and proteins, screening studies, etc.

Essential features of the 96-well deep-well plates made from PP

- Free from DNA, RNases, and DNases
- High chemical resistance, e.g., against DMSO
- Temperature range -80 °C to 121 °C
- According to ANSI/SLAS 1 and 4
- Stackable

The 1.2 ml low profile model reduces the space requirements by approx. 30%.



96-well

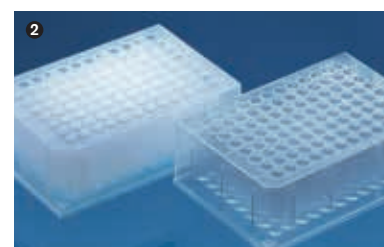
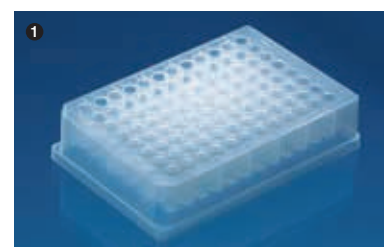
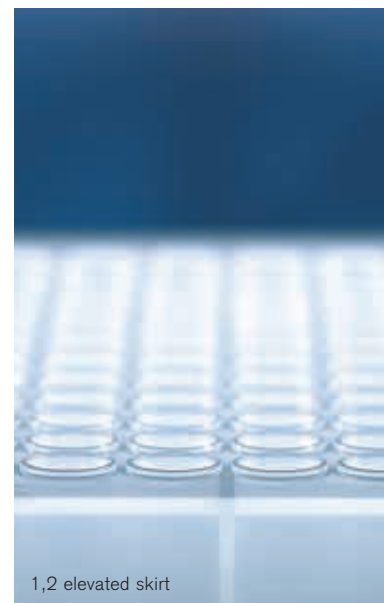
U-bottom wells, non-sterile

PP and PS. Capacities 0.5 ml, 1.1 ml, 1.2 ml low profile and 2.2 ml.

	Capacity ml	Material	well shape	Height mm	Pack of	Cat. No.
1	0,5	PP	round	28.5	48	7013 46
2	1,1	PP	round	40.6	24	7013 50
	1,1*	PS	round	41.0	32	7013 52
3	1,2 elevated skirt	PP	round	41.4	32	7013 42
	1,2 low profile**	PP	round	26.5	50	7013 40
4	2,2	PP	square	44.0	24	7013 54

* Not autoclavable, usable down to -20 °C

** Not checked for absence of DNA, RNases, and DNases



NEW!

NEW!

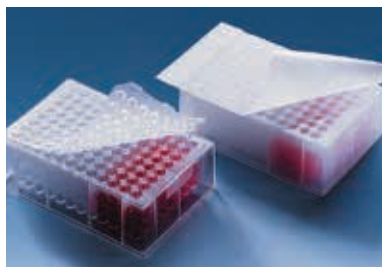


384-well

V-bottom wells, non-sterile

PP. Capacity 0.3 ml. Designed for a wide range of applications, such as High-Throughput Screening (HTS), tests requiring a mother plate, cell and tissue cultures, serial dilutions, reagent transfer and sample storage down to -80 °C. Deep-well plates are manufactured in the ANSI/SLAS format and are stackable for easy storage. Pack of 48.

Cat. No.	7013 55
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Cover mats for Deep-well plates

Cover mats reduce the maximum volume of wells. Adhesive sealing films can also be used.

Description	Material	Pack of	Cat. No.
for 0.3 ml 384-well plates	Silicone	50	7013 57
for 0.5 ml 96-well plates	PP	50	7013 58
for 1.1 ml 96-well plates	mod. PE	24	7013 60
for 1.2 ml 96-well plates, low profile	TPE	50	7013 68
for 2.2 ml 96-well plates	EVA	24	7013 62

Microtitration plates and deep-well plates are also available **with bar codes**. More information at www.brand.de.



96-well microplate

U-bottom wells, non-sterile

PP. For volumes up to 300 µl. Compatible with virtually all leading microplate centrifuges. Raised rings around the orifice of each well minimize possible cross-contamination. The plates can be sealed using self-adhesive films, such as DMSO-resistant sealing film (for more information, see page 140). Pack of 100 (10 per bag).

Cat. No.	7013 30
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96 tube racks

with 0.65 ml or 1.2 ml tubes, non-sterile, for use with robots

Tubes and rack are autoclavable at 121 °C (2 bar), acc. DIN EN 285 (cover mat/strip, TPE, not autoclavable). Tubes, racks, and lids can withstand temperatures as low as -80 °C. The seal of the tubes is pressure-tested. Thanks to the stable connection between the mounting plate and the racks, the stackable racks in ANSI/SLAS format are especially well-suited for use with robots and other automated dispensing systems. Coded tubes (A1 - H12) and rack sides suitable for barcode labels simplify sample organization.

Description	Material	Pack of	Cat. No.
Rack with lid for 0.65 ml tubes, empty*	PP	50	7815 62
Rack with lid with 96 coded 0.65 ml tubes*	PP	50	7815 65
Refill unit of 96 coded 0.65 ml tubes*	PP	50	7815 72
Single 0.65 ml tube w/o coding	PP	5000	7815 75
Rack with lid for 1.2 ml tubes, empty*	PP	50	7815 63
Rack with lid with 96 coded 1.2 ml tubes*	PP	50	7815 66
Refill unit of 96 coded 1.2 ml tubes*	PP	50	7815 73
Single 1.2 ml tube w/o coding	PP	5000	7815 76
Strip of 8 lids, piercable	TPE	1000	7815 82
Cover mat for 96 tubes, piercable	TPE	100	7815 83

* Not available in the USA.



Tubes 1.2 ml, rack packed

Tubes and rack, non-sterile

PP tubes and rack are autoclavable at 121 °C (2 bar), acc. DIN EN 285 (caps, PE, are not autoclavable). Ideal for biological tests, such as PCR, cell uptake studies, RIA and EIA. Designed for storing and freezing down to -80 °C, and for transporting reagents and samples. Compatible with standard microplates and suitable for working with multichannel pipettors. (Size of tubes: outer Ø 8.8 mm, height 45 mm.)

Description	Material	Pack of	Cat. No.
Rack with 96 individual tubes	PP	10	7815 00
Rack with 12 strips of 8 tubes	PP	10	7815 10
Individual tubes	PP	960	7815 20
Strip of 8 tubes	PP	120	7815 25
Individual caps	PE	960	7815 30
Strip of 8 caps	PE	120	7815 35
Rack with grid, empty	PP	10	7815 40



Sealing films, self-adhesive

In case the microplates need not only to be covered, but also securely sealed, self-adhesive sealing films are available. These film sheets can be easily applied on the plates and also removed without the use of expensive equipment. They are available in different versions and are especially well-suited for storage or cell- and tissue-culture.

ELISA, PCR

Allows visual inspection. Temperature range -40 °C to +120 °C (7813 90), -40 °C to +110 °C (7813 91), -80 °C to +120 °C (7013 67). Single films. Packs of 100 sheets.



for ELISA, PCR

Polyester. Transparent.

Cat. No. 7813 90

for ELISA, Real-Time PCR

Polyester. High-transparency.

Cat. No. 7813 91

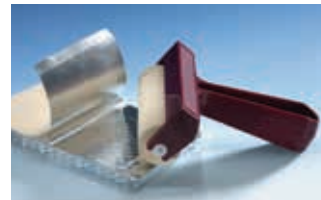
for storage, ELISA, PCR

PP. DMSO resistant.

Cat. No. 7013 67

Roller

For simple, even pressure of self-adhesive films.

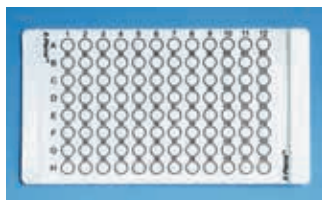


Hard rubber.
Pack of 1.

Cat. No. 7013 80

Automation

Easy to pierce with pipette tips.
Temperature range -40 °C to +90 °C. Single films.



PE top, underside PP with adhesive. Inert, chemically resistant.
Packs of 50 sheets.

Cat. No. 7013 70

Vinyl, acrylic adhesive. Multiply pierceable with pipette tips.
Packs of 100 sheets.

Cat. No. 7013 74

Fluorescence and luminescence measurement

Temperature range -40 °C +80 °C.
Single films. Packs of 50 sheets.



for fluorescence measurement

Vinyl, black.
Light-absorbent.

Cat. No. 7013 71



for luminescence measurement

Vinyl, white.
Reflective.

Cat. No. 7013 72

Cell and tissue culture

Rayon. Gas-permeable. Temperature range -20 °C to +80 °C.
Single films.

Non-sterile

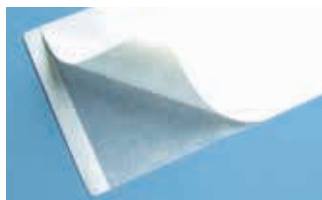
pack of 100 sheets

Cat. No. 7013 64

Sterile

pack of 50 sheets

Cat. No. 7013 65



Cold storage

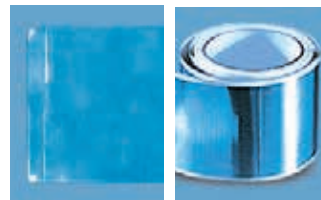
Aluminum. Easy to pierce with pipette tips. Temperature range -80 °C to +120 °C. Packs of 100 sheets. Single film or 1 roll.

Single sheets

Cat. No. 7813 81

Roll

Cat. No. 7813 80



Cryogenic Tubes

Designed for storage of biological material, such as microorganisms, human and animal cells, etc. in the gaseous phase of liquid nitrogen.

PP, graduated, outer-Ø 12.5 mm. Large frosted marking area and colored cap inserts for easy sample identification. Temperature stability to -196 °C, γ -sterilized (SAL 10⁻⁶) and autoclavable at 121 °C (2 bar), acc. DIN EN 285.

Marked with the CE symbol according to the IVD Directive 98/79 EC. Tubes without ring stands can be centrifuged at up to an RCF of 14 000 g.

Cryogenic tubes are sterile, RNase-, DNase-, DNA- and endotoxin-free.

with external thread

Screw-on cap with silicone seal

Pack of 1000 (10 bags of 100).

Capacity ml	Subdivision up to ml	Description	Height mm	Cat. No.
1.2	1.0	self-standing	41	1148 30
2.0	1.8	round-bottom	47	1148 31
2.0	1.8	self-standing	49	1148 32
3.0	3.0	self-standing	70	1148 33
4.0	3.6	self-standing	76	1148 34
5.0	4.5	self-standing	90	1148 35



with internal thread

Screw-on cap with sealing cone

Pack of 1000 (10 bags of 100).

Capacity ml	Subdivision up to ml	Description	Height mm	Cat. No.
1.2	1.0	self-standing	41	1148 40
2.0	1.8	self-standing	49	1148 41
2.0	1.8	round-bottom	48	1148 42
4.0	3.6	round-bottom	70	1148 43
4.0	3.6	self-standing	71	1148 44
5.0	4.6	round-bottom	90	1148 45



Cap inserts

PP. Fit for all sizes.
Pack of 500.

Color	Cat. No.
white	1148 50
blue	1148 51
red	1148 52
green	1148 53
yellow	1148 54



Accessories Cryogenic Tubes

Storage boxes

PC. For cryogenic tubes. Operating range (in the gaseous phase of liquid nitrogen) -196 °C to +121 °C. Autoclavable at 121 °C (2 bar), acc. DIN EN 285. Pack of 4.



for cryogenic tubes ml	Positions	Length mm	Width mm	Height mm	Cat. No.
1.2 and 2	81	132	132	52	1148 62
3, 4 and 5/**	81	132	132	95	1148 64
1.2 and 2**	100	132	132	52	1148 66

* Pack of 5 ** internal thread *** external thread

Cryogenic tube rack

PP, blue. For 50 self-standing cryogenic tubes. Pack of 4.



Cat. No.	1148 60
----------	---------

Microcentrifuge tube racks

PP. Operating temperature -20 °C to +90 °C. Autoclavable at 121 °C (2 bar), acc. DIN EN 285. Density 1.2 g/cm³, will not float in waterbath. L x W x H in mm: 265 x 126 x 38. Pack of 5.



Positions	white Cat. No.	blue Cat. No.	red Cat. No.	yellow Cat. No.
6 x 14	43410 00	43410 01	43410 02	43410 03

Mini cooler

PC. Mini coolers are designed to protect a wide range of solutions (enzymes, DNA, RNA, cell suspensions) by helping to maintain freezer temperatures on the lab bench. Durable polycarbonate filled with non-toxic gel. Mini coolers hold twelve 0.5 ml to 2.0 ml tubes. Pack of 1.



Bench temperature maintained	Time held	Color	Cat. No.
0 °C	60 min.	red	1149 30
-20 °C	60 min.	yellow	1149 35
-70 °C	45 min.	white	1149 40



BRANDplates® Microplates

Modern research methods require high-quality disposables.

BRANDplates® microplates can be used in all important fields of life science. For this comprehensive line, three immunological and four cell culture surfaces have been developed under the most modern production conditions.

The product line covers a multitude of standard applications (e.g., homogenous assays, screenings) as well as applications in the fields of immunology and cell culture technique.

■ Non-treated surfaces

pureGrade™
pureGrade™ S

■ Immunology

immunoGrade™
hydroGrade™
lipoGrade™

■ Cell culture

cellGrade™
cellGrade™ plus
cellGrade™ premium
inertGrade™

The BRANDplates® product range has grown to more than 115 different microplates. To assist you in the selection and to give a quick overview, we offer the BRANDplates® Selection Guide, available on the internet at www.brand.de.



BRANDplates®

pureGrade™ pureGrade™ S

Microplates, non-treated surface

Non-treated microplates made of PS are used in the most diversified application fields, such as homogenous standard assays and extensive screening assays. The hydrophobic characteristics of non-treated PS are often helpful in performing these applications.

pureGrade™ (medium binding)*

Non-treated surface, non-sterile

- The standard plate for most applications.
- Particularly applicable for homogenous assays, screening, and for storage.

* high binding surface, see page 150

pureGrade™ S

Non-treated surface, sterile

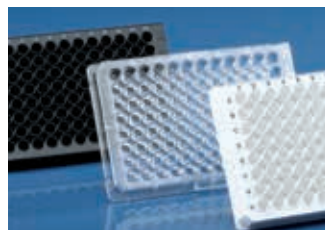
- Sterilized via β -radiation.
- Especially suited for bacteriological assays.

Application Specifications

	Application	Types (see below)		
		96-well	384-well	1536-well
pureGrade™ medium binding, non-sterile	for homogenous assays, screening, and for storage, for DNA, RNA and protein quantification	1 2 3 4	1 2	1
pureGrade™ S sterile	for bacteriological assays, screenings etc.	1 2	1 2	1

Types

96-well microplates



1 Standard



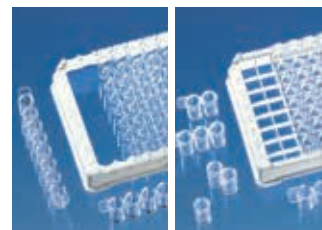
2 with transparent bottom

NEW!



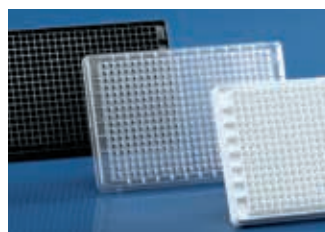
3 with UV-transparent film bottom

NEW!



4 Strip plates (without and with grid)

384-well microplates

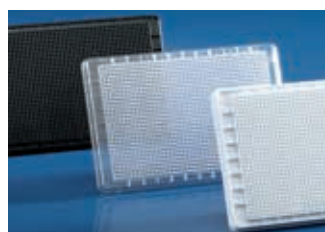


1 Standard



2 with transparent bottom

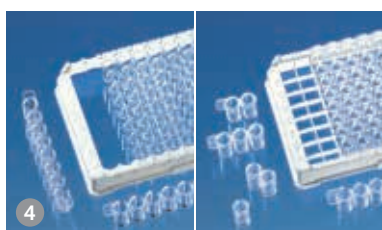
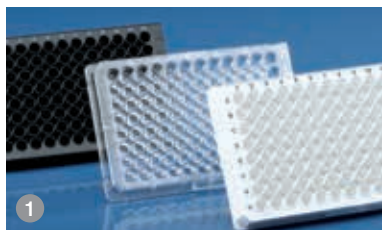
1536-well microplates



1 Standard



Insert System microplates
pureGrade™ S 6-well and 24-well
can be found on page 159.



96-well Microplates

pureGrade™ (medium binding)

PS. Non-treated, non-sterile.

For homogenous assays, screenings, storage, etc.

Color	Bottom	Well volume	Pack of	Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	100 (20 stacks of 5 plates)	7816 00
transparent	V-bottom	360 µl	100 (20 stacks of 5 plates)	7816 01
transparent	F-bottom	350 µl	100 (20 stacks of 5 plates)	7816 02
transparent	C-bottom	350 µl	100 (20 stacks of 5 plates)	7816 03
white	U-bottom	330 µl	100 (20 stacks of 5 plates)	7816 04
white	F-bottom	350 µl	100 (20 stacks of 5 plates)	7816 05
black	U-bottom	330 µl	100 (20 stacks of 5 plates)	7816 07
black	F-bottom	350 µl	100 (20 stacks of 5 plates)	7816 08
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	100 (4 bags of 25 plates)	7816 10
black	F-bottom	330 µl	100 (4 bags of 25 plates)	7816 11
3 96-well microplates with UV-transparent film bottom				
PS with UV-transparent film bottom, slightly hydrophilized, 25 µm bottom thickness, transmission at 240 nm 80%				
transparent, UV-transparent	UV! F-bottom	350 µl	50 (5 bags of 10 plates)	7816 14 ¹ NEW!
black, UV-transparent	UV! F-bottom	350 µl	50 (5 bags of 10 plates)	7816 15 ¹ NEW!
4 96-well strip plates				
transparent, without grid, strips of 8 wells, not divisible	F-bottom	360 µl	100 (4 bags of 25 plates)	7823 00 NEW!
transparent, with grid, strips of 8 wells, divisible	F-bottom	350 µl	100 (4 bags of 25 plates)	7823 01 NEW!

¹ not available in USA

pureGrade™ S

PS. Non-treated, sterile.

For bacteriological assays, screenings, storage, etc.

Color	Bottom	Well volume	Pack of	Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	50 (individually wrapped, with lid)	7816 60
transparent	V-bottom	360 µl	50 (individually wrapped, with lid)	7816 61
transparent	F-bottom	350 µl	50 (individually wrapped, with lid)	7816 62
transparent	C-bottom	350 µl	50 (individually wrapped, with lid)	7816 63
white	F-bottom	350 µl	50 (individually wrapped, with lid)	7816 65
black	F-bottom	350 µl	50 (individually wrapped, with lid)	7816 68
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	50 (individually wrapped, with lid)	7816 70
black	F-bottom	330 µl	50 (individually wrapped, with lid)	7816 71

Lids for BRANDplates® microplates can be found on page 164.

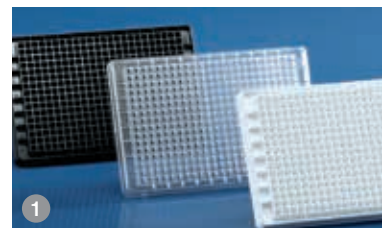
384-well Microplates

pureGrade™ (medium binding)

PS. Non-treated, non-sterile.

For homogenous assays, screenings, storage, etc.

Color	Bottom	Well volume	Pack of	Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	50 (5 bags of 10 plates)	7816 20
white	F-bottom	100 µl	50 (5 bags of 10 plates)	7816 21
black	F-bottom	100 µl	50 (5 bags of 10 plates)	7816 22
2 384-well microplates with transparent bottom				
white	F-bottom	120 µl	50 (2 bags of 25 plates)	7816 26
black	F-bottom	120 µl	50 (2 bags of 25 plates)	7816 27

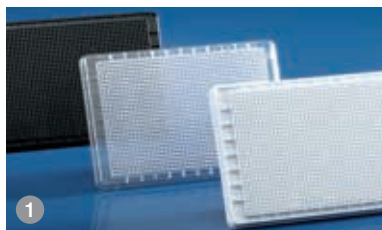


pureGrade™ S

PS. Non-treated, sterile.

For bacteriological assays, screenings, storage, etc.

Color	Bottom	Well volume	Pack of	Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	50 (individually wrapped, with lid)	7816 80
white	F-bottom	100 µl	50 (individually wrapped, with lid)	7816 81
black	F-bottom	100 µl	50 (individually wrapped, with lid)	7816 82
2 384-well microplates with transparent bottom				
white	F-bottom	120 µl	50 (individually wrapped, with lid)	7816 86
black	F-bottom	120 µl	50 (individually wrapped, with lid)	7816 87



1536-well Microplates

pureGrade™

PS. Non-treated, non-sterile.

For homogenous assays, screenings, storage, etc.

Color	Bottom	Well volume	Pack of	Cat. No.
1 1536-well standard microplates				
transparent	F-bottom	10 µl	50 (5 bags of 10 plates)	7816 40
white	F-bottom	10 µl	50 (5 bags of 10 plates)	7816 41
black	F-bottom	10 µl	50 (5 bags of 10 plates)	7816 42

pureGrade™ S

PS. Non-treated, sterile.

For bacteriological assays, screenings, storage, etc.

Color	Bottom	Well volume	Pack of	Cat. No.
1 1536-well standard microplates				
transparent	F-bottom	10 µl	50 (individually wrapped, with lid)	7817 00
white	F-bottom	10 µl	50 (individually wrapped, with lid)	7817 01
black	F-bottom	10 µl	50 (individually wrapped, with lid)	7817 02

Information on **untreated Petri dishes made of PS and inoculation loops** can be found on page 244.

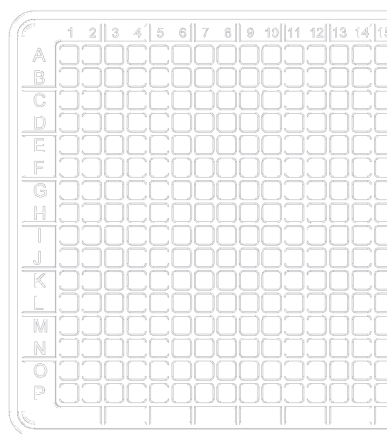
BRANDplates®

immunoGrade™
hydroGrade™
lipoGrade™

Microplates for Immunoassays

Diagnosis of disease, pregnancy or verification of doping substances – many analyses in the modern laboratory are performed with immuno-logical assays in microplates.

They are characterized by their high specificity and provide the opportunity to detect the lowest concentrations of defined substances in complex liquids, such as blood serum.



BRANDplates® Surfaces for Immunoassays

immunoGrade™, hydroGrade™ and lipoGrade™ – three surfaces with different affinities to different types of molecules. The BRANDplates® microplates are suitable for a broad section of applications like ELISA, RIA, FIA, etc.

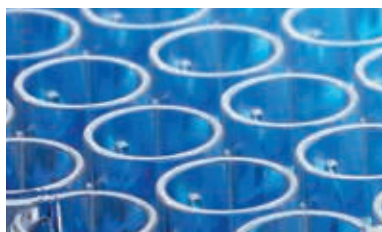


immunoGrade™ (high-binding)*

Optimized for the immobilization of IgG

- Optimized for the immobilization of IgG, offering highest binding capacity for molecules with mixed hydrophilic and hydrophobic regions.
- The surface of choice for the majority of standard ELISAs.
- Suitable for solid phase immunoassays.
- Comparable to 'high-binding' plates from other manufacturers.

* medium binding surface, see page 144



hydroGrade™

For the immobilization of hydrophilic molecules

- Strongly hydrophilic, with high affinity to hydrophilic molecules, such as glycoproteins and peptides, antibodies with predominantly hydrophilic regions, and nucleic acids.
- An alternative to the immunoGrade™ surface when performing solid phase assays.
- Alternative for homogeneous assays with hydrophobic molecules, that remain in solution.



lipoGrade™

For the immobilization of hydrophobic molecules

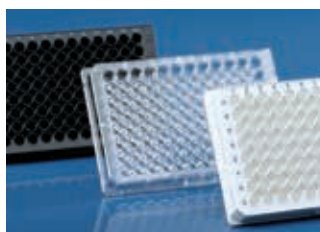
- Strongly hydrophobic (lipophilic), for immobilization of biomolecules with predominantly hydrophobic regions.
- An alternative to the immunoGrade™ surface for the immobilization of molecules, such as lipoproteins or peptides.
- Specially suited for liquid phase assays when the reaction component should stay in solution. The majority of hydrophilic biomolecules are not immobilized on this surface.

Application Specifications

	Application	Types (see below)	
		96-well	384-well
immunoGrade™ high-binding, non-sterile	Standard ELISA, solid phase immunoassays, optimized for the immobilization of IgG, comparable to other 'high-binding' plates	1 2 3	1
hydroGrade™ non-sterile	Solid phase with hydrophilic molecules, liquid phase with hydrophobic molecules	1	1
lipoGrade™ non-sterile	Solid phase with hydrophobic molecules, liquid phase with hydrophilic molecules	1 2	1 2

Types

96-well microplates

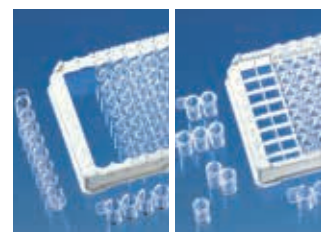


1 Standard



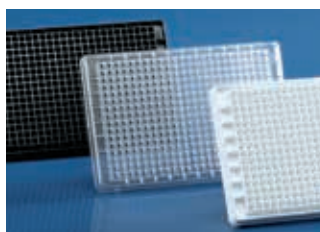
2 with transparent bottom

NEW!



3 Strip plates (without and with grid)

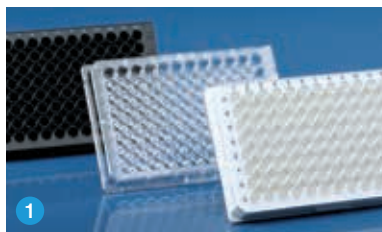
384-well microplates



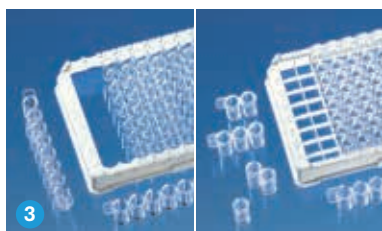
1 Standard



2 with transparent bottom



NEW!



96-well Microplates

immunoGrade™ (high-binding)

PS, non-sterile.

Optimized for the immobilization of IgG, standard ELISA assay.

Color	Bottom	Well volume	Pack of	Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	100 (20 stacks of 5 plates)	7817 20
transparent	V-bottom	360 µl	100 (20 stacks of 5 plates)	7817 21
transparent	F-bottom	350 µl	100 (20 stacks of 5 plates)	7817 22
transparent	C-bottom	350 µl	100 (20 stacks of 5 plates)	7817 23
white	U-bottom	330 µl	100 (20 stacks of 5 plates)	7817 24
white	C-bottom	350 µl	100 (20 stacks of 5 plates)	7817 26
black	U-bottom	330 µl	100 (20 stacks of 5 plates)	7817 27
black	C-bottom	350 µl	100 (20 stacks of 5 plates)	7817 29
2 96-well microplates with transparent bottom				
black	F-bottom	330 µl	100 (20 stacks of 5 plates)	7817 31
black	F-bottom	330 µl	5 (1 bag of 5 plates)	7817 32
3 96-well strip plates				
transparent, without grid, strips of 8 wells, not divisible	F-bottom	360 µl	100 (4 bags of 25 plates)	7823 05
transparent, with grid, strips of 8 wells, divisible	F-bottom	350 µl	100 (4 bags of 25 plates)	7823 06

NEW!
NEW!

hydroGrade™

PS, non-sterile. Hydrophilic. For solid phase with hydrophilic molecules and liquid phase with hydrophobic molecules, respectively.

Color	Bottom	Well volume	Pack of	Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	100 (20 stacks of 5 plates)	7817 80
transparent	F-bottom	350 µl	100 (20 stacks of 5 plates)	7817 82
transparent	C-bottom	350 µl	100 (20 stacks of 5 plates)	7817 83
white	U-bottom	330 µl	100 (20 stacks of 5 plates)	7817 84
white	C-bottom	350 µl	100 (20 stacks of 5 plates)	7817 86
black	U-bottom	330 µl	100 (20 stacks of 5 plates)	7817 87
black	C-bottom	350 µl	100 (20 stacks of 5 plates)	7817 89

lipoGrade™

PS, non-sterile. Lipophilic/hydrophobic. For solid phase with hydrophobic molecules and liquid phase with hydrophilic molecules, respectively.

Color	Bottom	Well volume	Pack of	Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	100 (20 stacks of 5 plates)	7818 40
transparent	V-bottom	360 µl	100 (20 stacks of 5 plates)	7818 41
transparent	F-bottom	350 µl	100 (20 stacks of 5 plates)	7818 42
transparent	C-bottom	350 µl	100 (20 stacks of 5 plates)	7818 43
white	U-bottom	330 µl	100 (20 stacks of 5 plates)	7818 44
white	C-bottom	350 µl	100 (20 stacks of 5 plates)	7818 46
black	U-bottom	330 µl	100 (20 stacks of 5 plates)	7818 47
black	C-bottom	350 µl	100 (20 stacks of 5 plates)	7818 49
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	100 (20 stacks of 5 plates)	7818 50
white	F-bottom	330 µl	5 (1 bag of 5 plates)	7818 52
black	F-bottom	330 µl	100 (20 stacks of 5 plates)	7818 51
black	F-bottom	330 µl	5 (1 bag of 5 plates)	7818 53

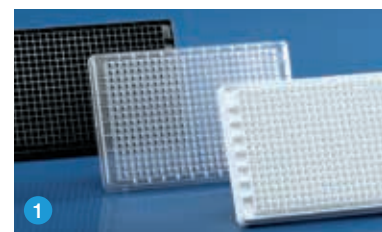
384-well Microplates

immunoGrade™ (high-binding)

PS, non-sterile.

Optimized for the immobilization of IgG, standard ELISA assay.

Color	Bottom	Well volume	Pack of	Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	50 (10 stacks of 5 plates)	7817 40
white	F-bottom	100 µl	50 (10 stacks of 5 plates)	7817 41
black	F-bottom	100 µl	50 (10 stacks of 5 plates)	7817 42



hydroGrade™

PS, non-sterile. Hydrophilic. For solid phase with hydrophilic molecules and liquid phase with hydrophobic molecules, respectively.

Color	Bottom	Well volume	Pack of	Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	50 (10 stacks of 5 plates)	7818 00
white	F-bottom	100 µl	50 (10 stacks of 5 plates)	7818 01
black	F-bottom	100 µl	50 (10 stacks of 5 plates)	7818 02



lipoGrade™

PS, non-sterile. Lipophilic/hydrophobic. For solid phase with hydrophobic molecules and liquid phase with hydrophilic molecules, respectively.

Color	Bottom	Well volume	Pack of	Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	50 (10 stacks of 5 plates)	7818 60
white	F-bottom	100 µl	50 (10 stacks of 5 plates)	7818 61
black	F-bottom	100 µl	50 (10 stacks of 5 plates)	7818 62
2 384-well microplates with transparent bottom				
white	F-bottom	120 µl	50 (10 stacks of 5 plates)	7818 66
white	F-bottom	120 µl	5 (1 bag of 5 plates)	7818 68
black	F-bottom	120 µl	50 (10 stacks of 5 plates)	7818 67
black	F-bottom	120 µl	5 (1 bag of 5 plates)	7818 69

Lids for BRANDplates® microplates can be found on page 164.



BRANDplates®

cellGrade™
cellGrade™ plus
cellGrade™ premium
inertGrade™

Microplates for Cell Culture

Cell culture is increasing in popularity in the research and development area. Outside of basic research, cells are cultivated today for a number of reasons, including the production of proteins and, in particular, as assay systems.

As cell cultures can sometimes be quite demanding regarding their environment, the disposables used for cultivation have to be of highest quality. BRAND has drawn upon its extensive experience in the production of high-quality plastic disposables to expand the product range of BRANDplates® microplates into the field of cell culture.

BRANDplates® Surfaces for Cell Culture

Adherent cells prefer polar surfaces that possess hydrophilic functional groups. In contrast suspension cells prefer extremely hydrophobic or hydrophilic surfaces, that don't allow any immobilization. Four different plate surfaces – cellGrade™, cellGrade™ plus, cellGrade™ premium, inertGrade™ – allow the optimum combination between microplate and specific cell line.



cellGrade™

For the cultivation of adherent cells

- Standard surface for the cultivation of adherent cell lines.
- PS-surface with different chemical groups, such as carboxyl and hydroxyl groups, that are freely accessible.
- Surface is hydrophilic compared with non-treated PS.
- Serum components are easily bound onto the freely accessible chemical groups, allowing an indirect adhesion of cells.



cellGrade™ plus

For reduced-serum media cultivation of cells

- For cultivation of fastidious cell lines.
- In addition to carboxyl and hydroxyl chemical groups, free amino groups are present on the surface.
- The surface has a protein-like composition, so cells can directly attach and spread out.
- Cells adhere faster, better rate of yield.
- Sensitive cell lines can be cultivated.
- Suited for serum-reduced cultivation of cells.



cellGrade™ premium

Poly-D-Lysine-equivalent surface

- Poly-D-Lysine-equivalent surface, with analogous results regarding growth performance and cell morphology.
- Optimal adhesion of cells to the surface reduces cell damage when washing frequently.
- Cultivation of cell lines with the highest demands on their environment.
- Surface suited for serum-free and serum-reduced cultivation of cells.
- Good shelf life at room temperature.
- The alternative option to biologically coated surfaces.



inertGrade™

For cultivation of suspension cells

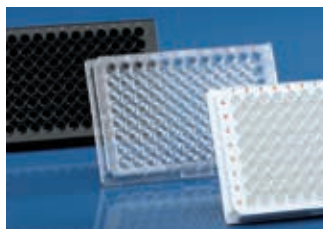
- Especially suited for cell cultures, when adhesion is not desired.
- Optimized surface characteristics reduce cell adhesion and protein adsorption to a minimum.
- Inhibits early differentiation of stem cells.
- Sterilized with ethylene oxide.

Application Specifications

	Application	Types (see below)		
		96-well	384-well	1536-well
cellGrade™ sterile	For standard applications in cell culture, e.g., for the cultivation of adherent cell lines	1 2	1 2	1
cellGrade™ plus sterile	Serum-reduced cultivation for fastidious cell cultures	1 2	1 2	
cellGrade™ premium sterile	For fastidious cell lines, serum reduced and -free cultivation	1 2	1 2	
inertGrade™ sterile	Cultivation of cells (including normally adherent types) in suspension	1 2		

Types

96-well microplates

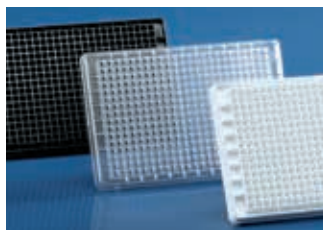


1 Standard



2 with transparent bottom

384-well microplates

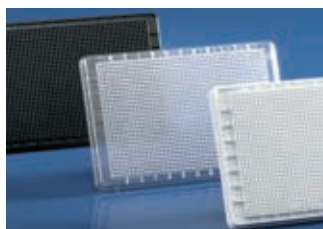


1 Standard



2 with transparent bottom

1536-well microplates



1 Standard



Insert System microplates **cellGrade™ plus 6-well and 24-well** can be found on page 159.

Accessories for cell culture applications (Transferpette® multichannel pipettes, accu-jet® pro, QuikSip™) can be found on page 59, 99, 104.

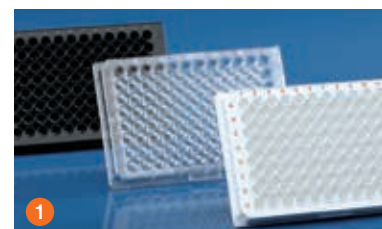
cellGrade™

PS, sterile. For standard cell culture applications.

Color	Bottom	Well volume	Pack of 5 * Cat. No.	Pack of 50 ** Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	–	7819 60
transparent	V-bottom	360 µl	–	7819 61
transparent	F-bottom	350 µl	–	7819 62
transparent	C-bottom	350 µl	–	7819 63
white	F-bottom	350 µl	–	7819 65
black	F-bottom	350 µl	–	7819 68
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	7819 74	7819 70
black	F-bottom	330 µl	7819 75	7819 71

* 1 bag of 5 plates

** individually wrapped, with lid



cellGrade™ plus

PS, sterile.

For cultivation of fastidious cell lines and for serum-reduced cultivation.

Color	Bottom	Well volume	Pack of 5 * Cat. No.	Pack of 50 ** Cat. No.
1 96-well standard microplates				
transparent	F-bottom	350 µl	–	7820 22
white	F-bottom	350 µl	–	7820 25
black	F-bottom	350 µl	–	7820 28
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	7820 34	7820 30
black	F-bottom	330 µl	7820 35	7820 31

* 1 bag of 5 plates

** individually wrapped, with lid



cellGrade™ premium

PS, sterile. For the most demanding cell lines, and for serum-reduced and serum-free cultivation.

Color	Bottom	Well volume	Pack of 5 * Cat. No.	Pack of 50 ** Cat. No.
1 96-well standard microplates				
transparent	F-bottom	350 µl	–	7820 82
white	F-bottom	350 µl	–	7820 85
black	F-bottom	350 µl	–	7820 88
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	7820 94	7820 90
black	F-bottom	330 µl	7820 95	7820 91

* 1 bag of 5 plates

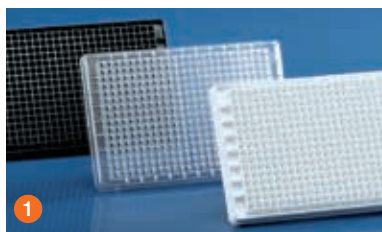
** individually wrapped, with lid

inertGrade™

PS, sterile. For cultivation of suspension and stem cells.

Color	Bottom	Well volume	Pack of 5 * Cat. No.	Pack of 40 * Cat. No.
1 96-well standard microplates				
transparent	U-bottom	330 µl	–	7819 00
transparent	F-bottom	350 µl	–	7819 02
white	U-bottom	330 µl	–	7819 04
white	F-bottom	350 µl	–	7819 05
white	C-bottom	350 µl	–	7819 06
black	U-bottom	330 µl	–	7819 07
black	F-bottom	350 µl	–	7819 08
black	C-bottom	350 µl	–	7819 09
2 96-well microplates with transparent bottom				
white	F-bottom	330 µl	7819 12	7819 10
black	F-bottom	330 µl	7819 13	7819 11

* individually wrapped, with lid



384-well Microplates

cellGrade™

PS, sterile. For standard cell culture applications.

Color	Bottom	Well volume	Pack of 5* Cat. No.	Pack of 50** Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	–	7819 80
white	F-bottom	100 µl	–	7819 81
black	F-bottom	100 µl	–	7819 82
2 384-well microplates with transparent bottom				
white	F-bottom	120 µl	7819 88	7819 86
black	F-bottom	120 µl	7819 89	7819 87

* 1 bag of 5 plates

** individually wrapped, with lid

cellGrade™ plus

PS, sterile.

For cultivation of fastidious cell lines and for serum-reduced cultivation.

Color	Bottom	Well volume	Pack of 5* Cat. No.	Pack of 50** Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	–	7820 40
2 384-well microplates with transparent bottom				
white	F-bottom	120 µl	7820 48	7820 46
black	F-bottom	120 µl	7820 49	7820 47

* 1 bag of 5 plates

** individually wrapped, with lid

cellGrade™ premium

PS, sterile. For the most demanding cell lines, and for serum-reduced and serum-free cultivation.

Color	Bottom	Well volume	Pack of 5* Cat. No.	Pack of 50** Cat. No.
1 384-well standard microplates				
transparent	F-bottom	100 µl	–	7821 00
2 384-well microplates with transparent bottom				
white	F-bottom	120 µl	7821 08	7821 06
black	F-bottom	120 µl	7821 09	7821 07

* 1 bag of 5 plates

** individually wrapped, with lid

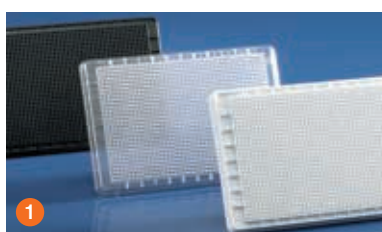
Lids for BRANDplates®
microplates can be found
on page 164.

1536-well Microplates

cellGrade™

PS, sterile. For standard cell culture applications.

Color	Bottom	Well volume	Pack of	Cat. No.
1 1536-well standard microplates				
transparent	F-bottom	10 µl	50 (individually wrapped, with lid)	7820 00
white	F-bottom	10 µl	50 (individually wrapped, with lid)	7820 01
black	F-bottom	10 µl	50 (individually wrapped, with lid)	7820 02

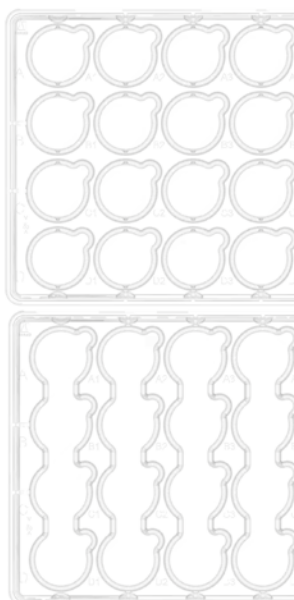


NEW!

BRANDplates® Insert System

The new BRANDplates® Insert System offers an innovative expansion of the existing cell culture product line at BRAND. Perfect for manual applications and for use with pipetting robots!

The new cell culture plates and the associated inserts are available in both a 24-well standard and a 6-well special plate. These can be used in a wide variety of applications. The standard model is used in such applications as co-culture, secretion studies, and chemotaxis tests, and the special model finds application in the automated in vitro preparation of human tissues (3-D tissue culture). Skin, epidermis, and corneal models, etc., have taken on greater importance due to legislation that restricts animal experimentation to a minimum. These tissues are now employed on a daily basis for tolerance studies, toxicity tests, and irritation tests in the pharmaceutical and cosmetics industries.



NEW!

BRANDplates® Insert System

For manual and automated cell and tissue culture work.

The BRAND Insert System, co-developed with the Fraunhofer Society, includes two different cell culture plates and two types of cell culture inserts, which can also be used in combination.



24-well Standard Plate

cellGrade™ plus and **pureGrade™ S** surface

- The plate includes 24 individually fillable wells that can be fitted with strips of 4 inserts and/or individual inserts.
- Manufactured according to the requirements in ANSI/SLAS Standards 1 and 4
- cellGrade™ plus surface: sterile, hydrophilic with different chemical groups, such as carboxyl and hydroxyl groups, that are freely accessible.
- pureGrade™ S surface: untreated, sterile



6-well Special Plate

cellGrade™ plus and **pureGrade™ S** surface

- The 4 wells are all connected as one large, elongated well. This well can be fitted with a strip of 4 inserts so that all 4 of the inserts in the strip can be supplied with medium at the same time.
- Manufactured according to the requirements in ANSI/SLAS Standards 1 and 4
- cellGrade™ plus surface: sterile, hydrophilic with different chemical groups, such as carboxyl and hydroxyl groups, that are freely accessible.
- pureGrade™ S surface: untreated, sterile



Cell Culture Insert Strips

smooth-walled

cellGrade™ plus surface

- Smooth-walled, for standard applications such as secretion studies, co-culture, migration studies, chemotaxis tests, etc.
- cellGrade™ plus surface: sterile, hydrophilic with different chemical groups, such as carboxyl and hydroxyl groups, that are freely accessible.



Cell Culture Insert Strips

Inlet Opening System*

cellGrade™ plus surface

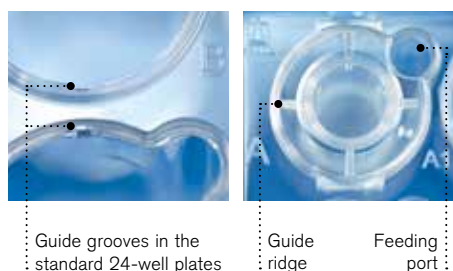
- With special inlet channels, for automated in vitro preparation of human tissues. The Inlet Opening System* enables rapid, consistent changing of media, from submersion culture to air-lift culture. The special inlet channels enable adjustment of the medium level without damage to the skin model.
- cellGrade™ plus surface: sterile, hydrophilic with different chemical groups, such as carboxyl and hydroxyl groups, that are freely accessible.

* Patent pending

A Closer Look...

The well and insert are perfectly coordinated:

The guide grooves in the support collars for the wells in the standard 24-well plate hold the guide ridges of the insert in position. This prevents the individual inserts from rotating – the feed ports on the wells remain open. At the same time, the guide ridges center the insert in the well.



- Innovative, specially designed wells with side feeding ports
- Track-etched PC and PET membranes
- Sterile according to ISO 11 137 and AAMI Guidelines, SAL 10⁻⁶
- Non-cytotoxic according to ISO 10993-5, endotoxins-free (< 0.01 EU/ml), free from DNA, DNase, and RNase.

Hanging Inserts

The distance from the well bottom to the insert membrane is 4 mm.

The cultures remain undisturbed!

Media can be changed simply and with minimal disruption using the plate's feed ports, without moving or shifting inserts already in place – **perfect for working with pipetting robots!**



Membrane pore size / application examples

Pore size	Areas of application
0.4 µm	Co-culture, transport studies, secretion studies, cell polarity studies, etc.
1.0 µm	Co-culture, transport studies, secretion studies, etc.
3.0 µm	Migration studies, chemotaxis studies, metastasis experiments, etc.
8.0 µm	Migration studies, chemotaxis studies, metastasis experiments, etc.
	See also the construction of full-thickness skin models by the Fraunhofer IGB (www.tissue-factory.com)

Membrane pore size and density

Properties	PC	PET
Optical properties	translucent	transparent
Cell visibility under Light Microscopy	–	+
Membrane thickness		
Pore size 0.4 µm	10 µm	12 µm
Pore size 1.0 µm	11 µm	12 µm
Pore size 3.0 µm	9 µm	15 µm
Pore size 8.0 µm	7 µm	23 µm
Pore density (pores per cm²)		
Pore size 0.4 µm	1 x 10 ⁸	2 x 10 ⁶
Pore size 1.0 µm	2 x 10 ⁷	2 x 10 ⁶
Pore size 3.0 µm	2 x 10 ⁶	6 x 10 ⁵
Pore size 8.0 µm	1 x 10 ⁵	6 x 10 ⁴

Comparison of individual insert vs. individual well in the 24-well plate

	Individual insert	Individual well
Growth surface	59 mm ²	184 mm ²
Maximum volume	772 µl	3.1 ml



Ordering Data

Insert strips and plates available individually packed or as a system
(6-well plates filled with 6 insert strips).

BRANDplates® Microplates

24-well standard plates or 6-well plates

PS. pureGrade™ S or cellGrade™ plus surface, sterile. With lid with condensation rings.

Description	Surface	Pack of	Cat. No.
24-well standard plate	pureGrade™ S	10 (individually wrapped, with lid)	7828 80
6-well plate	pureGrade™ S	10 (individually wrapped, with lid)	7828 81
24-well standard plate	cellGrade™ plus	10 (individually wrapped, with lid)	7828 90
6-well plate	cellGrade™ plus	10 (individually wrapped, with lid)	7828 91

BRANDplates® Insert Strips

Insert Strips, smooth-walled or with inlet channels (Inlet Opening System*)

PS. cellGrade™ plus surface, sterile. Strips of 4 inserts (divisible).

Description	Pore size µm	Pack of	PC membrane Cat. No.	PET membrane Cat. No.
smooth-walled	0.4	12 (individually wrapped)	7828 00	7828 10
	1	12 (individually wrapped)	7828 20	7828 30
	3	12 (individually wrapped)	7828 40	7828 50
	8	12 (individually wrapped)	7828 60	7828 70
with Inlet Opening System	0.4	12 (individually wrapped)	7828 01	7828 11
	1	12 (individually wrapped)	7828 21	7828 31
	3	12 (individually wrapped)	7828 41	7828 51
	8	12 (individually wrapped)	7828 61	7828 71

* patent pending

BRANDplates® Insert System

6-well plates filled with 6 insert strips

PS. cellGrade™ plus surface, sterile. Insert strips, smooth-walled or with inlet channels (Inlet Opening System*). With lid with condensation rings.

Description	Pore size µm	Pack of plates with lid	PC membrane Cat. No.	PET membrane Cat. No.
smooth-walled	0.4	5 (30 insert strips)	7828 02	7828 12
	1	5 (30 insert strips)	7828 22	7828 32
	3	5 (30 insert strips)	7828 42	7828 52
	8	5 (30 insert strips)	7828 62	7828 72
with Inlet Opening System	0.4	5 (30 insert strips)	7828 03	7828 13
	1	5 (30 insert strips)	7828 23	7828 33
	3	5 (30 insert strips)	7828 43	7828 53
	8	5 (30insert strips)	7828 63	7828 73

* patent pending

At a Glance

Use our BRANDplates® microplates
Selection Guide at www.brand.de

96-well Microplates

Type		Non-treated		Immunological surfaces			Cell culture surfaces			
Standard		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
transparent	U / 330 µl	7816 00	7816 60	7817 20	7817 80	7818 40	7819 60	–	–	7819 00
transparent	V / 360 µl	7816 01	7816 61	7817 21	–	7818 41	7819 61	–	–	–
transparent	F / 350 µl	7816 02	7816 62	7817 22	7817 82	7818 42	7819 62	7820 22	7820 82	7819 02
transparent	C / 350 µl	7816 03	7816 63	7817 23	7817 83	7818 43	7819 63	–	–	–
white	U / 330 µl	7816 04	–	7817 24	7817 84	7818 44	–	–	–	7819 04
white	F / 350 µl	7816 05	7816 65	–	–	–	7819 65	7820 25	7820 85	7819 05
white	C / 350 µl	–	–	7817 26	7817 86	7818 46	–	–	–	7819 06
black	U / 330 µl	7816 07	–	7817 27	7817 87	7818 47	–	–	–	7819 07
black	F / 350 µl	7816 08	7816 68	–	–	–	7819 68	7820 28	7820 88	7819 08
black	C / 350 µl	–	–	7817 29	7817 89	7818 49	–	–	–	7819 09
with transparent bottom		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
white	F / 330 µl	7816 10	7816 70	–	–	7818 50	7819 70	7820 30	7820 90	7819 10
white*	F / 330 µl	–	–	–	–	7818 52	7819 74	7820 34	7820 94	7819 12
black	F / 330 µl	7816 11	7816 71	7817 31	–	7818 51	7819 71	7820 31	7820 91	7819 11
black*	F / 330 µl	–	–	7817 32	–	7818 53	7819 75	7820 35	7820 95	7819 13
with UV film bottom		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
transparent	F / 350 µl	7816 14 ¹	–	–	–	–	–	–	–	–
	F / 350 µl	7816 15	–	–	–	–	–	–	–	–
Strip plates		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
transparent, without grid	F / 360 µl	7823 00	–	7823 05	–	–	–	–	–	–
transparent, with grid	F / 350 µl	7823 01	–	7823 06	–	–	–	–	–	–

¹ not available in USA

* Pack of 5

384-well HTS Microplates

Type		Non-treated		Immunological surfaces			Cell culture surfaces			
Standard		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
transparent	F / 100 µl	7816 20	7816 80	7817 40	7818 00	7818 60	7819 80	7820 40	7821 00	–
white	F / 100 µl	7816 21	7816 81	7817 41	7818 01	7818 61	7819 81	–	–	–
black	F / 100 µl	7816 22	7816 82	7817 42	7818 02	7818 62	7819 82	–	–	–
with transparent bottom		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
white	F / 120 µl	7816 26	7816 86	–	–	7818 66	7819 86	7820 46	7821 06	–
white*	F / 120 µl	–	–	–	–	7818 68	7819 88	7820 48	7821 08	–
black	F / 120 µl	7816 27	7816 87	–	–	7818 67	7819 87	7820 47	7821 07	–
black*	F / 120 µl	–	–	–	–	7818 69	7819 89	7820 49	7821 09	–

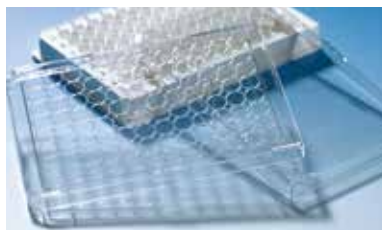
* Pack of 5

1536-well UHTS Microplates

Type		Non-treated		Immunological surfaces			Cell culture surfaces			
Standard		pureGrade™	pureGrade™ S	immunoGrade™	hydroGrade™	lipoGrade™	cellGrade™	cellGrade™ plus	cellGrade™ premium	inertGrade™
Color	Bottom / Well volume									
transparent	F / 10 µl	7816 40	7817 00	–	–	–	7820 00	–	–	–
white	F / 10 µl	7816 41	7817 01	–	–	–	7820 01	–	–	–
black	F / 10 µl	7816 42	7817 02	–	–	–	7820 02	–	–	–

Accessories

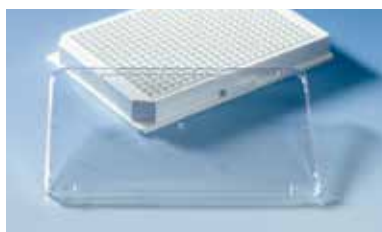
Lids for 96-well standard plates



For BRANDplates® microplates Cat. No.:
7816 00-08, 7816 60-68, 7817 20-29, 7817 80-89, 7818 40-49, 7819 00-09,
7819 60-68, 7820 22-28, 7820 82-88

Condensation rings	Height	Sterile	Pack of	Cat. No.
yes	8 mm	–	100 (5 lids per bag)	7821 50
no	8 mm	–	100 (5 lids per bag)	7821 51

Lids for 96-well plates with transparent bottom



Lids for all 384-well plates

For BRANDplates® microplates Cat. No.:
7816 10-28, 7816 70-88, 7817 31-42, 7818 00-02, 7818 50-67,
7819 10-27, 7819 70-87, 7820 30-47, 7820 90-7821 07

Condensation rings	Height	Sterile	Pack of	Cat. No.
no	4.5	–	50 (10 lids per bag)	7821 52



Lids for all 1536-well plates

For BRANDplates® microplates Cat. No.:
7816 40-42, 7817 00-02, 7820 00-02

Condensation rings	Height	Sterile	Pack of	Cat. No.
no	5.5	–	50 (10 lids per bag)	7821 53

Sealing films for microplates
can be found on page 140.

Cuvettes

For more than 25 years, BRAND has been one of the leading manufacturers of disposable plastic cuvettes. Macro and semi-micro cuvettes of PS and PMMA are now standard in every laboratory. This product line was extended with the plastic UV-Cuvettes. The UV-transparent cuvettes are available in various types and replace sensitive and expensive glass or quartz cuvettes in many areas.

Quality features:

- Clear, clean optical path with indication of optical path orientation
- Manufactured under controlled room conditions and packaged fully automatically, without human contact
- Packed grouped by mold cavity number to ensure lowest variation of extinction coefficient
- UV-Cuvettes available as micro, semi-micro and macro cuvettes





UV-Cuvette micro

Center height: 8.5 mm or 15 mm

Specially designed for photometric determination of proteins, ssDNA, dsDNA, RNA and oligonucleotides in the UV range. Usable starting from 230 nm.

Ideally suited for measurements at 260 nm, 280 nm and in the visible range.

Standard 10 mm light path. Sample volumes as small as 70 µl are sufficient.

Individually wrapped UV-Cuvettes micro are free of DNase, DNA and RNase!

Center height mm	Pack of	Cat. No.
8.5	100	7592 00
8.5	500	7592 10
8.5	100 single wrapped, free of DNase, DNA and RNase	7592 15
15	100	7592 20
15	500	7592 30
15	100 single wrapped, free of DNase, DNA and RNase	7592 35

Information on selecting the UV-Cuvette **compatible with the beam height** of your photometer can be found at **www.brand.de**

Caps for UV-Cuvette micro

PE. Round covers allow a tight closure and make it possible to store samples down to -20 °C. Pack of 100.



Color		Cat. No.
blue		7592 40
yellow		7592 41
green		7592 42
orange		7592 43

UV-transparent microplates can be found on page 146.



UV-Cuvette macro and semi-micro

Ideally suited for determinations in water analysis, chemistry, and in life science applications. Usable with most polar solvents, acids and alkaline solutions.

Drastically reduced risk of contamination and lower costs compared to quartz glass cuvettes. 10 mm light path. Pack of 100 per carton.

Description	Cat. No.
UV-Cuvette semi-micro	7591 50
UV-Cuvette macro	7591 70

Standard Cuvettes macro and semi-micro

PS and PMMA. Grouped by mold cavity number. 10 mm light path.
Pack of 1000 (10 boxes of 100 cuvettes per box.)

Description	Material	Cat. No.
macro cuvette	PS	7590 05
semi-micro cuvette	PS	7590 15
macro cuvette	PMMA	7591 05
semi-micro cuvette	PMMA	7591 15

Magnetic stir bars for macro cuvettes
can be found on page 292-295.



Cuvette rack

PP, grey. Numbered positions. Autoclavable (121 °C).
Suitable for standard 10 mm path-length cuvettes. Pack of 1.

Description	Length mm	Width mm	Height mm	Cat. No.
for 16 cuvettes	210	70	38	7595 00



Disposable stirring spatula

PS. Pack quantity 10000 = 20 bags of 500 per pack.

Description	Stem diameter mm	Length mm	Cat. No.
PS	3	120 mm	7598 00

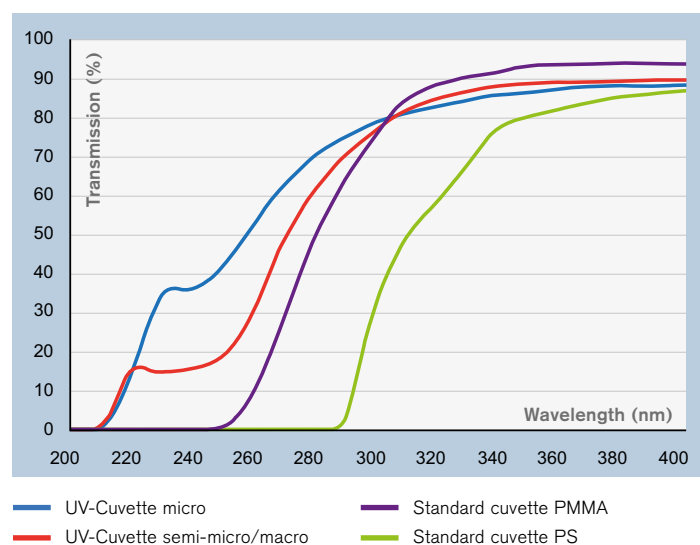


Technical Data

Overview Table

Cuvette type	Filling volume min. max.		Dimensions window (w x h)	Range of application	Standard deviation in extinction units
UV-Cuvette micro, z = 8.5	70 µl	850 µl	2 x 3.5 mm (min.)	from 230 to 900 nm	240 nm ≤ ± 0.007 300 nm ≤ ± 0.005
UV-Cuvette micro, z = 15	70 µl	550 µl	2 x 3.5 mm (min.)		
UV-Cuvette macro	2.5 ml	4.5 ml	10 x 35 mm		
UV-Cuvette semi-micro	1.5 ml	3.0 ml	4.5 x 23 mm		
macro cuvette (PMMA)	2.5 ml	4.5 ml	10 x 35 mm	from 300 to 900 nm	320 nm ≤ ± 0.004
semi-micro cuvette (PMMA)	1.5 ml	3.0 ml	4.5 x 23 mm		
macro cuvette (PS)	2.5 ml	4.5 ml	10 x 35 mm	from 340 to 900 nm	360 nm ≤ ± 0.005
semi-micro cuvette (PS)	1.5 ml	3.0 ml	4.5 x 23 mm		

Transmission curves of different cuvettes



To achieve reproducible results: Before the actual measurement, always determine the blank value for the cuvette, and determine the linear range of measurement by means of a calibration curve.

Grouping by Mold Cavity

A plastic injection mold with 8 separate cavities can produce 8 cuvettes at a time. Minor dimensional variations between the cavities are unavoidable despite the most advanced technology. This may result in a greater variation of extinction values between cuvettes from different cavities. Therefore, BRAND automatically packages cuvettes originating from the same cavity in each carton of 100, 500 or 1000 cuvettes to minimize variation in extinction coefficients.

For best results, use cuvettes from the same cavity number for each series of analyses.

Chemical resistance* of plastic cuvettes

Substance	PS	PMMA	UV-Cuvette
Acetic acid, 100%	–	–	+
Acetone	–	–	+
Ammonia	+	+	+
Benzaldehyde	–	–	+
Butanone	–	–	+
Chloroform	–	–	–
Dioxane	–	–	+
DMF	–	–	+
Ethyl acetate	–	–	+
Hexane	–	+	–
Hydrochloric acid, 36%	+	–	+
Hydrofluoric acid, 10%	+	+	+
Isopropanol	+	+	+
Nitric acid, 65%	–	–	+
Sodium hydroxide	+	+	+

* Short time resistance, 30 min. Longer-term storage of these chemicals should be confirmed by the user. Request a free sample.

Various photometric methods are currently available for determining the concentration and purity of nucleic acids and proteins.

Protein determination using UV cuvettes:

$$C_{\text{Protein (mg/ml)}} = 1.55 \times A_{280 \text{ nm}} - 0.76 \times A_{260 \text{ nm}}$$

Nucleic acid determination using UV cuvettes:

$$C_{\text{DNA (µg/ml)}} = 50 \times A_{260 \text{ nm}} \times \text{dilution factor}$$

$$C_{\text{RNA (µg/ml)}} = 40 \times A_{260 \text{ nm}} \times \text{dilution factor}$$

BRAND

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Products

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Liquid Handling

Life Science Products

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- BRANDplates® microplates
- BRANDplates® Insert system
- Micro-tubes with screw cap / Cryogenic tubes
- Micro-tubes with lid closure
- Micro-tubes
- PCE disposable products
- Sample storage
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- QuickTip™ BT-Aspirator

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