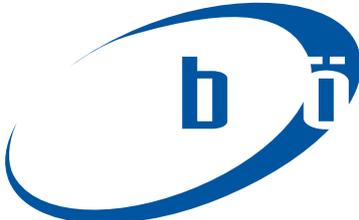


Product Range



 **b ö t t g e r**

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Dear Business Partners and
Esteemed Customers!

You have got your hands on our latest, updated product catalogue. It provides you with a graphic and clear description of our entire product portfolio. This volume also acts as a practical guide, as well as being an interesting information medium for the technical details and for our understanding of our role as your competent partner.



Paul Böttger oHG is a family business that is now being run by the third generation. The history of the firm goes back more than 100 years, during which time it has developed into an ultra-modern and highly-innovative company. A combination that benefits you, our customers, firstly because of the ongoing, technological progress, ultimate product quality and forward-looking company management and secondly, through streamlined structures, short distances and practised customer-orientation.

Important and traditional values such as fairness, frankness and personal contact with our customer, are always at the forefront of our activities, so that together we can find the perfect solutions.

You are right to have confidence in us:

Our expertise, flexibility and reliability are valuable capital and we are making it work for you, in order to establish a lasting partnership – for your success and for your satisfaction!

A handwritten signature in blue ink that reads "Peer Biendl".

Dr. Peer Biendl, Management

Test Tubes



Polystyrene Test Tubes



- Carefully selected, high-quality polystyrene
- High optical transparency
- Optimal visibility of contents
- Perfect rotation
- Good centrifugal loading capacity

Ref.-No.	Material	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)	Matching plugs
01-031-0100	PS	12/55	4	round	1,000/5,000	01-624-0100
01-051-0100	PS	12/75	5	round	1,000/4,000	01-624-0100
01-011-0100	PS	16/100	12	round	1,000/2,000	01-604-0100
01-011-3100	PS/LD-PE	16/100		round, fitted sterile	100/1,000	
01-021-0100	PS	16/105	12	conical	1,000/2,000	01-604-0100
01-041-0000	PS	22/62	20	flat	1,000/1,000	01-614-0100

Polypropylene Test Tubes



- Ideally suitable for a wide variety of applications
- High thermal and mechanical loading capacity
- High resistance to organic and inorganic reagents
- Autoclavable at 121°C/2.1 bar

Ref.-No.	Material	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)	Matching plugs
01-033-0100	PP	12/55	4	round	1,000/5,000	01-624-0100
01-053-0100	PP	12/75	5	round	1,000/4,000	01-624-0100
01-013-0100	PP	16/100	12	round	1,000/2,000	01-604-0100

Plugs



- Made from high quality polyethylene, not autoclavable
- Ribbed plugs with 2 sealing ribs, very tight sealing
- Easy handling with a high, ribbed grip
- Easy to open by tilting („one-hand operation“)

Ref.-No.	Material	Size (mm)	Colour	Description	Packaging (bag/ctn)
01-624-0100	LD-PE	12	natural	ribbed plug	1,000/20,000
01-624-0101			blue		
01-624-0102			red		
01-624-0103			yellow		
01-624-0104			green		
01-604-0100	LD-PE	16	natural	ribbed plug	1,000/10,000
01-604-0101			blue		
01-604-0102			red		
01-604-0103			yellow		
01-604-0104			green		
01-614-0100	HD-PE	22	natural	ribbed plug	1,000/5,000

Böttger – proven in the international market



We always demand the exceptional of ourselves. Our high standards for our own work have made us a reliable supplier and secured us an outstanding position in international competition for many years.

Sales partners in over 50 countries contribute to this success. Our market has long been the entire world, and exports have become an increasingly important factor in the dynamic development of the company.

Together with skilled, well-trained employees, our production site at Bodenmais in the Bavarian Forest, in the heart of Europe, is a solid basis for high productivity.

Screw Cap Test Tubes



- For safe transportation and storage of samples
- Made from selected polypropylene
- Tight sealing screw cap made from polyethylene
- Available with enclosed or fitted screw cap, standard-hygienic or sterile
- For mailing containers see page 30 and the following

16/57 mm Screw Cap Tubes, 8 ml

Ref.-No.	Material	Size (mm)	Volume (ml)	Cap Colour	Description	Packaging (bag/ctn)
01-093-1000	PP/HD-PE	16/57	8	natural	screw cap enclosed	1,000/2,000
01-093-1001				blue		
01-093-1002				red		
01-093-1003				yellow		

16/100 mm Screw Cap Tubes, 13 ml

Ref.-No.	Material	Size (mm)	Volume (ml)	Cap Colour	Description	Packaging (bag/ctn)
01-063-1000	PP/HD-PE	16/100	13	natural	screw cap enclosed	1,000/1,000
01-063-1001				blue		
01-063-1002				red		
01-063-1003				yellow		
01-063-2000	PP/HD-PE	16/100	13	natural	screw cap fitted	1,000/1,000
01-063-2001				blue		
01-063-2002				red		
01-063-2003				yellow		
01-063-3100	PP/HD-PE	16/100	13	natural	screw cap fitted, sterile	100/1,000
01-063-3101				blue		
01-063-3102				red		
01-063-3103				yellow		

Screw Cap Test Tubes



20/76 mm Screw Cap Tubes, 15 ml

Ref.-No.	Material	Size (mm)	Volume (ml)	Cap Colour	Description	Packaging (bag/ctn)
01-073-1000	PP/HD-PE	20/76	15	natural	screw cap enclosed	1,000/1,000
01-073-2000					screw cap fitted	1,000/1,000
01-073-3100					screw cap fitted, sterile	100/1,000

25/107 mm Screw Cap Tubes, 30 ml

Ref.-No.	Material	Size (mm)	Volume (ml)	Cap Colour	Description	Packaging (bag/ctn)
01-083-1000	PP/HD-PE	25/107	30	natural	screw cap enclosed	500/500
01-083-2000					screw cap fitted	
01-083-1003	PP/HD-PE	25/107	30	yellow	screw cap enclosed	500/500
01-083-2003					screw cap fitted	
01-083-1400	PP/HD-PE printed graduation	25/107	30	natural	screw cap enclosed	500/500
01-083-2400					screw cap fitted	500/500
01-083-3400					screw cap fitted, sterile	100/500

Screw cap tubes with a flat bottom



- For safe transportation and storage of samples
- Made from selected, especially clear polypropylene
- Tight sealing screw cap made from polyethylene
- Please note: tubes and screw caps must be ordered separately

Ref.-No.	Material	Size (mm)	Volume (ml)	Colour	Description	Packaging (bag/ctn)
08-013-0400-04	PP	30/85	40	transparent	tube	500/500
08-115-0000	HD-PE			natural	cap	500/500
08-023-0400-04	PP	30/126	60	transparent	tube	300/300
08-125-0000	HD-PE			natural	cap	300/300
08-033-0400-04	PP	44/114	120	transparent	tube	250/250
08-135-0000	HD-PE			natural	cap	250/250

Screw cap tubes with a round bottom/standing rim



- For safe transportation and storage of samples
- Made from selected, especially clear polypropylene
- Tube with triple graduation
- Tight sealing screw cap made from polyethylene

Ref.-No.	Material	Size (mm)	Volume (ml)	Cap Colour	Description	Packaging (bag/ctn)
08-313-1001	PP/HD-PE	31/48	20	blue	screw cap enclosed	500/1,000
08-323-1001	PP/HD-PE	39/55	35	blue	screw cap enclosed	500/500
08-333-1001	PP/HD-PE	39/74	50	blue	screw cap enclosed	500/500
08-343-1001	PP/HD-PE	48/80	100	blue	screw cap enclosed	250/250

Micro Tubes and Vials



Micro Tubes



- Made from selected high-quality and biologically inert polypropylene
- High resistance to temperatures and chemicals
- Autoclavable at 121°C/2.1 bar (cap not closed)
- Place for markings on label area and flat cover
- Perfect closure of leak free cap, due to the design of the lid
- Membrane can be punctured by sampling-needles
- Graduation
- Round inside bottom for easy recovery of pellets or fluids

Micro Tubes without a Cap

Ref.-No.	Material	Volume (ml)	Tube Colour	Description	Packaging (bag/ctn)
02-013-0100	PP	1.5	natural	w/o cap	1,000/10,000
02-033-0100	PP	2.0	natural	w/o cap	1,000/10,000

Micro Tubes *EasyFit* with Cap

- Made from polypropylene
- Easy closure, for example for use in the chemical laboratories of a hospital

Ref.-No.	Material	Volume (ml)	Tube Colour	Description	Packaging (bag/ctn)
02-023-0100	PP	1.5	natural	with cap	1,000/8,000
02-023-0101			blue		
02-023-0102			red		
02-023-0103			yellow		
02-023-0104			green		

Micro Tubes *SafeFit* with Cap



02-053-0100
-0101
-0102
-0103
-0104
-0107

02-063-0100
-0101
-0102
-0103
-0104
-0107

02-043-0100
-0101
-0102
-0103
-0104
-0107

- From selected, especially clear polypropylene, optimal visibility of contents
- High Speed Protected: special stability for highest security in centrifugation
- Special closing mechanism prevents accidental popping open of the cap
- Tight closure, e.g. for applications under thermal load (incubation)
- Precise sealing for low evaporation rate

Ref.-No.	Material	Volume (ml)	Tube Colour	Description	Packaging (bag/ctn)
02-053-0100	PP	0.5	natural	with cap	1,000/10,000
02-053-0101			blue		
02-053-0102			red		
02-053-0103			yellow		
02-053-0104			green		
02-053-0107			ambra (light protection)		
02-063-0100	PP	1.5	natural	with cap	1,000/8,000
02-063-0101			blue		
02-063-0102			red		
02-063-0103			yellow		
02-063-0104			green		
02-063-0107			ambra (light protection)		
02-043-0100	PP	2.0	natural	with cap	1,000/8,000
02-043-0101			blue		
02-043-0102			red		
02-043-0103			yellow		
02-043-0104			green		
02-043-0107			ambra (light protection)		

Vials for Cellcounters



- Optically clear, parallel surfaces
- Covers fitted of optimal density
- Free of dust or particles
- Reliable high quality-level

Ref.-No.	Material	Size (mm)	Volume (ml)	Description	Matching for	Packaging (bag/ctn)
02-901-2100	PS/LD-PE	32/60	25	cover fitted	Coulter, Hycell	250/1,000



Böttger – committed to environmental protection

We are a company that puts its products at the service of people's health and wellbeing. Environmental protection therefore plays a key role in our daily work.

Our headquarters is located in the Bavarian Forest, a holiday and recreation area. Here environmental protection is subject to particularly stringent regulations. Our environmentally friendly production easily complies with all legal requirements for the protection of nature. We are thus actively contributing to the reduction of CO₂ emissions.

Ecologically sound production also includes optimised, process-controlled manufacturing to ensure the minimum possible discharge of pollutants. Constant checks, regular measurements and certification according to DIN EN ISO 13485 together with our participation in the „Environmental Pact of Bavaria“ demonstrate our active contribution to the protection of nature and the preservation of our habitat.



Pipette Tips



Pipette tips, bulk



- Made from selected, hydrophobic polypropylene
- Modified exterior design with a modern edge contour and oval recessed grips
- Optimal surface quality
- Precise and centric opening of tip
- Optimised fit with a long soft cone
- Universal fit for single and multichannel pipettes
- Easy removal
- High accuracy and reproducibility

Ref.-No.	Material	Volume (µl)	Colour	Matching for	Packaging (bag/ctn)
03-013-0103	PP	2-200	yellow	Eppendorf, Brand, Gilson, Socorex, Labsystems, Finn, BioHit	1,000/25,000
03-023-0101	PP	50-1000	blue	Eppendorf, Brand, Gilson, Socorex, Labsystems, Finn, BioHit	1,000/10,000
03-033-0100	PP	0.1-20	crystal	Eppendorf, Brand, Gilson, Socorex, Labsystems, Finn, BioHit	1,000/10,000

Böttger – Made in Germany puts us a step ahead



With our location in Germany we ensure the customer-orientated development of individual solutions and profit from short distances, know-how and the reliability of our suppliers. The intensive dialogue with our customers enables continuous optimisation of our production processes:

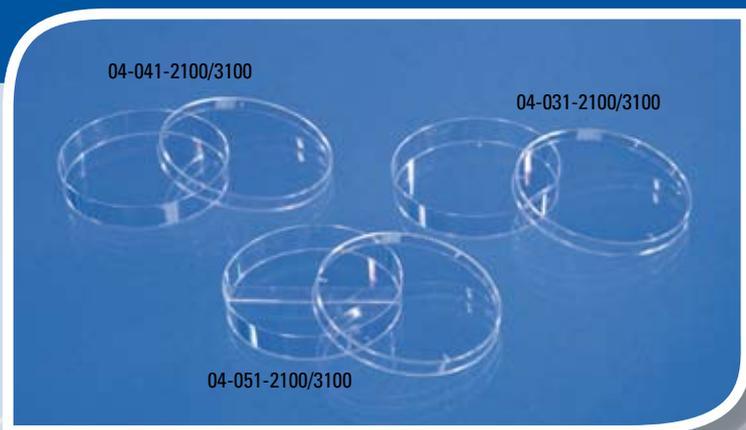
- Quick decisions to expand capacity with increasing demand
- Constant modernisation and use of the latest production technologies
- Ongoing optimisation of workflow management

Innovative & flexible, down to earth & cosmopolitan: we face the challenges.

Petri Dishes



Standard Petri Dishes



- Made from carefully selected polystyrene, crystal clear
- Available machinesterile or gammasterile
- optimal safe stacking, rigid surfaces
- Heat-resistant to approx. 80°C
- Highly suitable for the filling of culture-media by automatic machines

Ref.-No.	Material	Size (mm)	Vents	Description	Packaging (bag/ctn)
04-031-2100	PS	94/16	with	machinesterile	20/480
04-031-3100				gammasterile	
04-041-2100	PS	94/16	without	machinesterile	20/480
04-041-3100				gammasterile	

Petri Dishes 1/2-division

- Suitable for bacteriological examination-methods with more than one agar

Ref.-No.	Material	Size (mm)	Vents	Description	Packaging (bag/ctn)
04-051-2100	PS	94/16	with	machinesterile	20/480
04-051-3100				gammasterile	

Macro Plates



- For all bacteriological applications, with subdivided culture plate
- Simple and space-saving alternative to six conventional 35 mm-petri dishes
- External measurements are equal to micro plate

Ref.-No.	Material	Volume (ml/well)	Description	Packaging (bag/ctn)
05-061-2100	PS	15	6 wells, with cover	2/100

Micro Plates and Multi Plates



Micro Plates 96-Well



U-well

- No edges, therefore simple and clean to pipette into
- For +/- evaluations
- Especially suitable for agglutination-tests
- Maximum well-volume: 345 µl

V-well

- Especially good for releasing the „last drop“ from the pipette
- For +/- evaluations
- Suitable for storage of samples
- Maximum well-volume: 335 µl

F-well

- For precise optical measurements
- For microscopic applications (Bottom Reading)
- Rims at the bases prevent a scuffing of the optical surface
- Widened cell-growth-surface
- Maximum well-volume: 405 µl

- Made from carefully selected polystyrene, crystal clear
- Outstanding optical qualities
- Different well-types for different applications
- Fully compatible to all current standard-equipments (reading and washing devices)
- Safe stacking, no danger of slipping
- Appropriate gripping surfaces at the side
- Frosted surface of the plates prevents errors from extraneous light
- Alpha-numerical well identification for easy sample location
- Space for identification marking on the side surface
- Covers with condensation-rings to avoid medium-losses and uneven evaporation
- Lid orientation corners reduce risk of cross-contaminations

Ref.-No.	Material	Well	Volume (µl/well)	Description	Packaging (bag/ctn)
05-011-0100	PS	96 U	345	machinesterile	5/100
05-021-0100	PS	96 V	335	machinesterile	5/100
05-031-0100	PS	96 F	405	machinesterile	5/100
05-041-0100	PS	96		cover, machinesterile	5/100

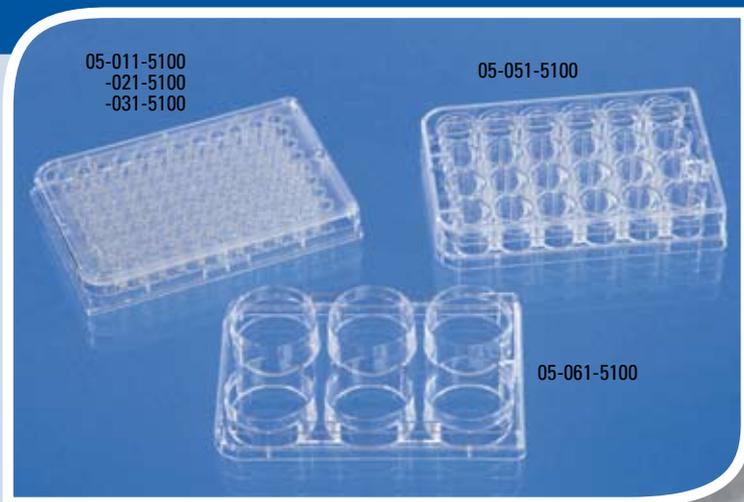
Macro Plates 6-Well



- For all bacteriological applications, which require a subdivided culture plate
- Simple and space-saving alternative to six conventional 35 mm-petri dishes
- External measurements equal to micro plate
- Maximum well-volume: 15 ml

Ref.-No.	Material	Volume (ml/well)	Description	Packaging (bag/ctn)
05-061-2100	PS	15	with cover, machinesterile	2/100

Multi Plates for Tissue Cultures (TC)



- Produced according to high quality standards
- Hydrophilic surface through special, non toxic TC-processing
- Optimal cell-liability and cell-proliferation, gammasterile
- With increased growth-surfaces ideally for cloning- as well as general tissue-culture-applications

Ref.-No.	Material	Wells	Volume (ml/well)	Growth-Surface (cm ²)	Description	Packaging (bag/ctn)
05-011-5100	PS	96 U	0,35	0,35	with cover, TC-sterile	1/100
05-021-5100	PS	96 V	0,34	0,28	with cover, TC-sterile	1/100
05-031-5100	PS	96 F	0,41	0,35	with cover, TC-sterile	1/100
05-051-5100	PS	24 F	2,9	1,75	with cover, TC-sterile	1/100
05-061-5100	PS	6 F	15	9,6	with cover, TC-sterile	1/100

Böttger – quality to the highest degree

To be better means to do more.

Through strategic investment and constant adjustment to dynamic technical changes, Böttger has become one of the leading companies in its special field, thin-wall injection moulding in large batches.

The focus of our production is in laboratory and medical plastic parts. This sensitive area in particular requires totally hygienic environments and smooth production processes. Using modern process-controlled production technology, robotic automation and computer integration, we achieve optimal, efficient manufacturing processes.

The use of modern technology is, however, only a means to an end: the final decision is always made by humans. Only once we are satisfied after intensive quality control checks, you get an ideal product. To meet the requirements for the quality of all products, we produce according to a precisely defined quality assurance system with prompt follow-up checks. This system fully complies with DIN EN ISO 9001. We are certified according to DIN EN ISO 13485 and Annex V, section 3 of the Directive 93/42/EEC.

Ultimately you decide what quality is: The high expectations of our customers are our benchmark for ourselves and our work. Cost control and optimal pricing are as important to us as top quality. Here lies the key to long-term, trusting customer relationships.

Satisfying our customers is the purpose of all our actions, and their success is our success!



Urine Cups, Medicine Cups, Multi-purpose Containers



Urine Cups with Snap Seals



- Ideal for collecting and storage of urine samples
- Resistant to pressure and shatterproof
- Optimal visibility of content, graduated
- Fluid tight lid, easy to close
- Frosted surface on cups and lids for identification marking

Ref.-No.	Material	Colour Lid	Volume (ml)	Description	Packaging (bag/ctn)
06-013-0000	PP		125	cup without lid	-/1,000
06-013-0005	PP white				
06-023-0000	PP		200	cup without lid	-/1,000
06-023-0006	PP black				
06-034-0001	LD-PE	blue		lid	500/1,000
06-034-0002		red			
06-034-0000		natural			
06-034-0006		black			
06-044-0002	LD-PE	red		lid with pouring spout	500/1,000
06-044-0001		blue			
06-044-0003		yellow			
06-034-1001	PP/LD-PE	blue	125	cup with lid	500/500
06-034-1101				subpackaged	100/500
06-044-1002	PP/LD-PE	red	125	cup with lid/pouring spout	500/500
06-044-1102				subpackaged	100/500
06-044-4103	PP/LD-PE	yellow	125	fitted, gammasterile	1/150

Urine Cups with Screw Closure



- Ideal for collection and storage of samples of all types
- Resistant to pressure and shatterproof, solid and stable
- Optimal visibility of content, graduated
- Wide opening for easy and safe filling
- Fluid tight sealing screw cap with thread
- Sealing is completely uncomplicated and immediately comprehensible
- Frosted surface on cups and lids for identification marking
- Gammasterile, machinesterile and standard-hygienic

Ref.-No.	Material	Colour Cap	Volume (ml)	Description	Packaging (bag/ctn)
06-053-0000	PP		100	cup without cap	-/1,000
06-065-0004	HD-PE	green		screw cap	250/1,000
06-065-0000		natural			
06-065-0001		blue			
06-065-0002		red			
06-065-0003		yellow			
06-065-0005		white			
06-065-1004	PP/HD-PE	green	100	cup with cap	-/500
06-065-1101		blue		subpackaged	100/500
06-065-1102		red			
06-065-1103		yellow			
06-065-1104		green			
06-065-2103-05		yellow	100	fitted	5/240
06-065-3103		yellow		fitted, gammasterile	5/240
06-065-4103		yellow		fitted, gammasterile	1/150

Böttger – internal standards as basis & motivation

We differentiate ourselves – through excellent product quality, outstanding customer support and special service. Because we see ourselves as a constructive partner. Identifying opportunities, responding with agility to changes, pooling resources and purposefully improving potentials: we are constantly working to expand our capabilities while taking your specific requirements into consideration. Because the demands you place on us make us more effective.

Böttger as a company is synonymous with:

- **Credibility and integrity**
- **Ambitious goals without complacency**
- **Striving for constant improvement**
- **Punctual delivery of perfect quality**
- **Fast and dedicated service**



Urine Cups with Self-Adhesive Lid



- Ideal for collection and storage of urine samples
- Resistant to pressure and shatterproof, graduated
- Tight sealing lid, no leakage, no inconvenient smells
- Lids can be easily and clearly written on, no special laboratory pens necessary
- Content can be poured out easily after perforation

Ref.-No.	Material	Lid	Volume (ml)	Description	Packaging (bag/ctn)
06-073-1400	PP	with print	100	cup with self-adhesive lid	-/1,000
06-073-1000		without print			

Medicine Cups



- Highly transparent, optimal visibility of content
- Resistant to pressure and shatterproof
- Available in several colours
- Snap cap with frosted surface for identification marking

Ref.-No.	Material	Colour	Description	Packaging (bag/ctn)
06-103-0100	PP	natural	medicine cups	75/3,750
06-103-0101		blue		
06-103-0102		red		
06-103-0103		yellow		
06-103-0104		green		
06-114-0005	LD-PE	white	lid for medicine cups	-/3,750
06-114-0105			subpackaged	75/3,750

Stool and Sputum Containers



Tubes for Stool with Plug



- Crystal clear
- Flat bottom
- Fitted push-in-plug with incorporated spoon
- Spoon for bean-size stool-samples



Ref.-No.	Material Tube	Colour Plug	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-011-2001	PS	blue	22/75	20	fitted	1,000/1,000

Tubes for Stool with Screw Closure



- Screw cap offers optimal hygiene, reliable and safe sealing
- Large sized spoon for bean-size stool-samples
- Corresponding to DIN EN 829 for mailing of stool samples
- Available gammasterile
- For matching mailing-containers see page 30 and the following

Ref.-No.	Material Tube	Colour Cap	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-023-2001	PP	blue	20/76	15	fitted	1,000/1,000
07-023-2007	PP	brown	20/76	15	fitted	1,000/1,000
07-023-3107					fitted, sterile	100/1,000
07-033-2007	PP	brown	16/100	13	fitted	1,000/1,000
07-033-3107					fitted, sterile	100/1,000
07-043-2007	PP	brown	25/107	30	fitted	500/500
07-043-3107					fitted, sterile	100/500

Tubes for Sputum with Plug



- Crystal clear
- Flat bottom
- Fitted push-in-plug

Ref.-No.	Material Tube	Colour Cap	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-051-2000	PS	natural	22/75	20	fitted	1,000/1,000

Sputum Container with Screw Closure



- Optimally clear
- Reliable screw cap fitted
- Available sterile or standard-hygienic
- For matching mailing containers see page 30 and the following

Ref.-No.	Material Container	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
01-073-1000	PP	20/76	15	screw cap enclosed	1,000/1,000
01-073-2000				screw cap fitted	1,000/1,000
01-073-3100				screw cap fitted sterile	100/1,000
07-061-1000	PS	70/23	24	cover enclosed	200/200
07-061-2000				cover fitted	
07-061-3000				cover fitted, sterile	

Customer focus, product competence

Because producing and delivering are not the end of the story: we strive for an intensive dialogue and exchange of experience with you to get even closer to the market and be able to constantly optimise and adapt our processes.

- **Open, rapid communication and willingness to talk**
- **Easy access to your known and consistent contact**
- **Quick order processing with ongoing information feedback**
- **Individual consideration of customer needs with constructive solution proposals**
- **Competence in all product matters and provision of appropriate information**
- **Incorporation of constant product improvements after feedback from our customers**
- **Realisation of OEM products and customer developments**



Mailing and Transport Containers



Mailing Containers for Diagnostic Samples



- Corresponding to DIN EN 829 (with insert/print)
- Optimal protection through cylindrical design
- Absorbent paper insert easy to change, multiple-use very simple
- Absorbent paper insert surrounds sample container and provides additional protection
- Absorbent pad must always be present in accordance with packing instruction P650.
- Biohazard and recycling symbol clearly visible
- Mailing containers Ø 30 mm fits into current mailboxes with 35 mm-wide slot
- Mailing containers 44/114 mm suitable, for example for mailing common culture mediums e.g. Uricult
- Mailing containers 30/126 mm with cap # 08-145-0000 suitable for Port-a-Cul
- Please note: Transport tubes and screw caps have to be ordered separate

Transport Tube 30/85 mm

Ref.-No.	Material	Colour	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
08-013-0000	PP	natural	30/85	40	multi-purpose container	500/500
08-013-0600					with insert/print	
08-013-0900					with insert/customer-print	

Screw Cap for Transport Tube 30/85 mm

Ref.-No.	Material	Colour	Description	Packaging (bag/ctn)
08-115-0000	HD-PE	natural	without chimney	500/500
08-115-0001		blue		
08-115-0002		red		
08-115-0003		yellow		
08-115-0007		brown		

Transport Tube 30/126 mm



Ref.-No.	Material	Colour	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
08-023-0000	PP	natural	30/126	60	multi-purpose container	300/300
08-023-0600					with insert/print	
08-023-0900					with insert/customer print	

Screw Cap for Transport Tube 30/126 mm

Ref.-No.	Material	Colour	Description	Packaging (bag/ctn)
08-125-0000	HD-PE	natural	with chimney for tube \varnothing 16 mm	300/300
08-125-0001		blue		
08-125-0002		red		
08-125-0003		yellow		
08-125-0007		brown		
08-145-0000	HD-PE	natural	for Port-a-Cul	300/300

Transport Tube 44/114 mm



Ref.-No.	Material	Colour	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
08-033-0000	PP	natural	44/114	120	multi-purpose container	250/250
08-033-0600					with insert/print	
08-033-0900					with insert/customer print	

Screw Cap for Transport Tube 44/114 mm

Ref.-No.	Material	Colour	Description	Packaging (bag/ctn)
08-135-0000	HD-PE	natural	with chimney for tube \varnothing 25 mm	250/250
08-135-0001		blue		
08-135-0002		red		
08-135-0003		yellow		
08-135-0007		brown		

Mailing Container



Mailing Container for Glass Slides

- For mailing or storage of glass slides
- For two slides (or for four slides stored opposite each other)
- Shielded ventilation in the cover

Ref.-No.	Material	Colour	Packaging (bag/ctn)
08-205-0000	HD-PE	natural	500/500

Mailing Container for Sputum Cup 24 ml

- For safe mailing of sputum cup 07-061-2000

Ref.-No.	Material	Colour	Packaging (bag/ctn)
08-212-1003	SB/LD-PE	natural/yellow	100/100

Examples of appropriate sample containers

Ref.-No.	Mailing container	Sample container	Ref.-No.
08-013-0600	Mailing container 30/85 with insert/print	Tubes for Stool 20/76	07-023-2007
		Tubes for Sputum 20/76	01-073-2000
08-023-0600	Mailing container 30/126 with insert/print	Screw Cap Test Tubes 16/57	01-093-1000
		Screw Cap Test Tubes 16/100	01-063-2000
		Tubes for Stool with Screw Closure 16/100	07-033-2007
08-033-0600	Mailing container 44/114 with insert/print	Screw Cap Test Tubes 25/107	01-083-2000
		Tubes for Stool with Screw Closure 25/107	07-043-2007

Böttger — all working together

Promoting individuality, demanding performance.

Reliability, quality and outstanding performance are the result of the productive interaction of all individuals. An important part of Böttger's corporate philosophy is the long-term, consistent cooperation with a proven team of highly qualified employees:

- Only qualified, loyal and motivated professionals work for us.
- Competent behaviour and the ability to make independent decisions with the help of in-depth knowledge distinguish our team.
- Our employees treat our customers as the actual employers and always behave in an entrepreneurial manner.
- Customer satisfaction remains the top priority in the work of each individual.

Our employees work for mutual success. They identify themselves with the products and goals of the company.

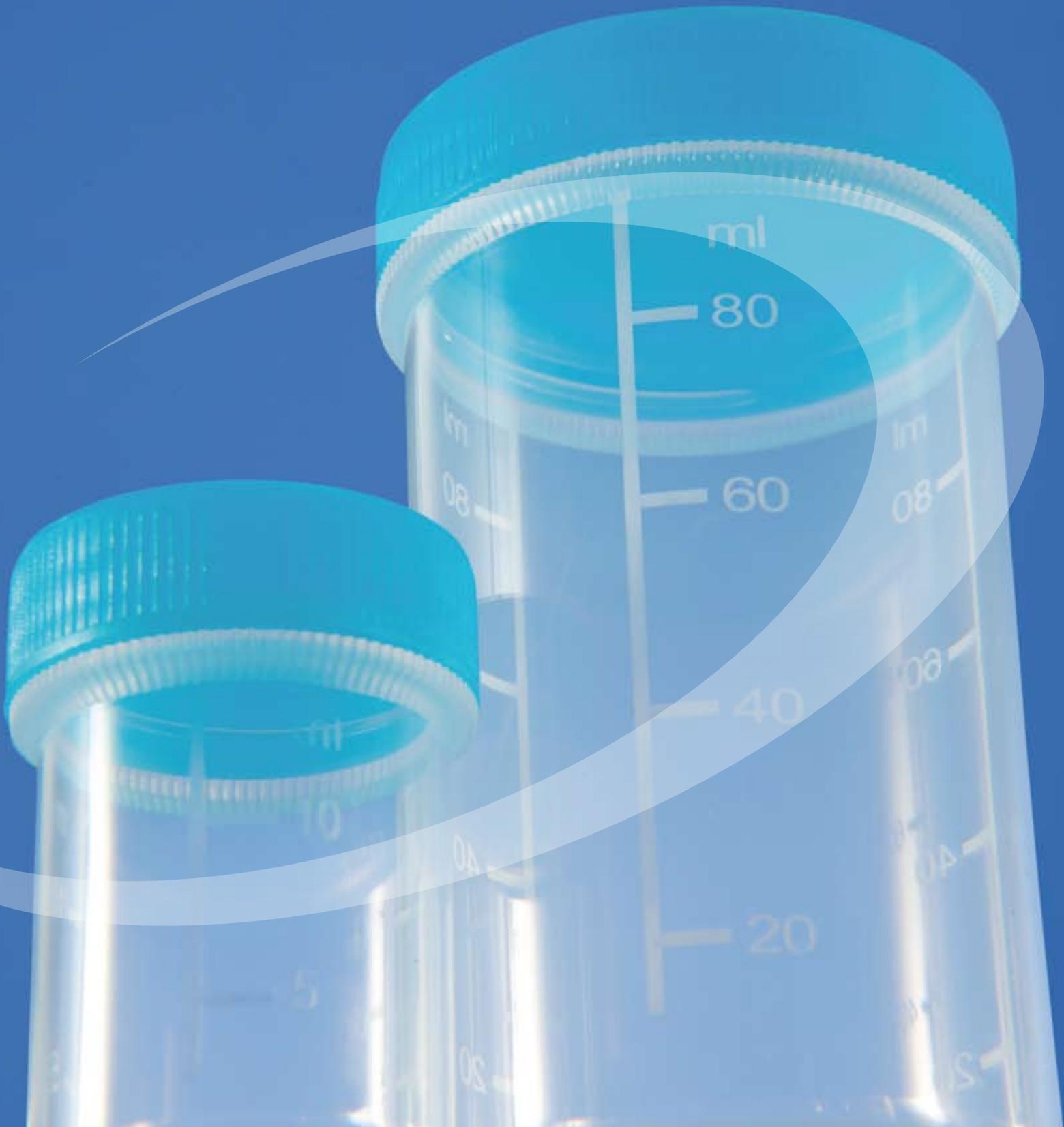
„All together“: for the solution of the demands placed on us with regard to quality, innovation, flexibility and speed we make use of a well-functioning network of reliable suppliers with whom we maintain fair and intensive cooperation:

- Exclusive use of high-quality materials and modern production technology.
- Long-term business contacts with a small selection of efficient suppliers.

Together we are preparing the way forward.



Containers for Pathology



Mailing Container *TWIN* for Pathology



- From selected, specially clear polypropylene
- With screw cap
- Special, very secure multi-seal system
- All-round stabilisation ring, frosted and ribbed
- Triple graduation
- Specially rounded bottom for easy removal of even small tissue samples
- Stable stand
- 35 ml-container serves as a protection-container for 20 ml-container (TWIN)
- 100 ml-container serves as a protection-container for 50 ml-container (TWIN)

Ref.-No.	Material Container/Cap	Volume (ml)	Size (mm)	Description	Colour Cap	Packaging (bag/ctn)
08-313-1001	PP/HD-PE	20	31/48	cap enclosed	blue	500/1,000
08-313-1000					natural	
08-323-1001	PP/HD-PE	35	39/55	cap enclosed	blue	500/500
08-323-1000					natural	
08-333-1001	PP/HD-PE	50	39/74	cap enclosed	blue	500/500
08-333-1000					natural	
08-343-1001	PP/HD-PE	100	48/80	cap enclosed	blue	250/250
08-343-1000					natural	

Tubes for Pathology with Screw Closure



Ref.-No.	Material Container/Cap	Volume (ml)	Size (mm)	Description	Colour Cap	Packaging (bag/ctn)
01-093-1001	PP/HD-PE	8	16/57	screw cap enclosed	blue	1,000/2,000
01-093-1000					natural	
01-063-1001	PP/HD-PE	13	16/100	screw cap enclosed	blue	1,000/1,000
01-063-1000					natural	
01-073-1001	PP/HD-PE	15	20/76	screw cap enclosed	blue	1,000/1,000
01-073-1000					natural	

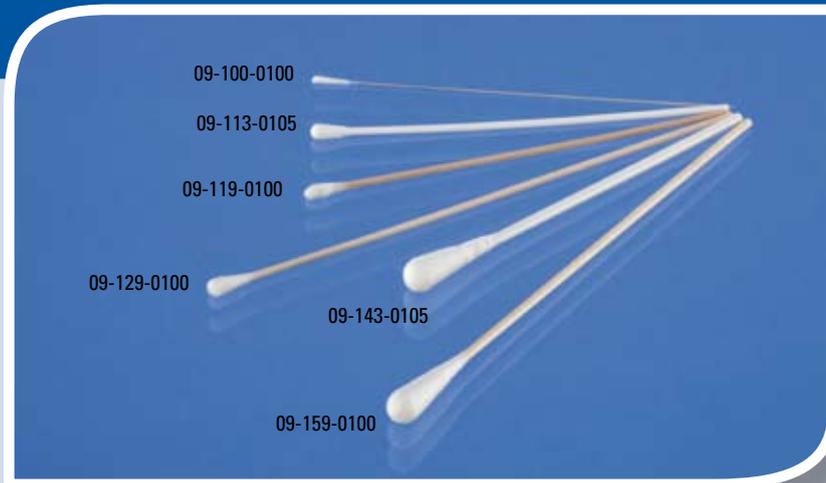
Cotton Applicators and Spatulas



Cotton Applicators

- On different applicator sticks
- In different lengths and head-sizes
- As a medical-product or hygienic/cleaning-article
- Sterile or standard hygienic

Medical Cotton Applicators



- Corresponding to EN ISO 13485
- Cotton applicators with mini head: for extraction of uro-genital samples
- Cotton applicators with big head: for care and cleaning of wounds and the skin

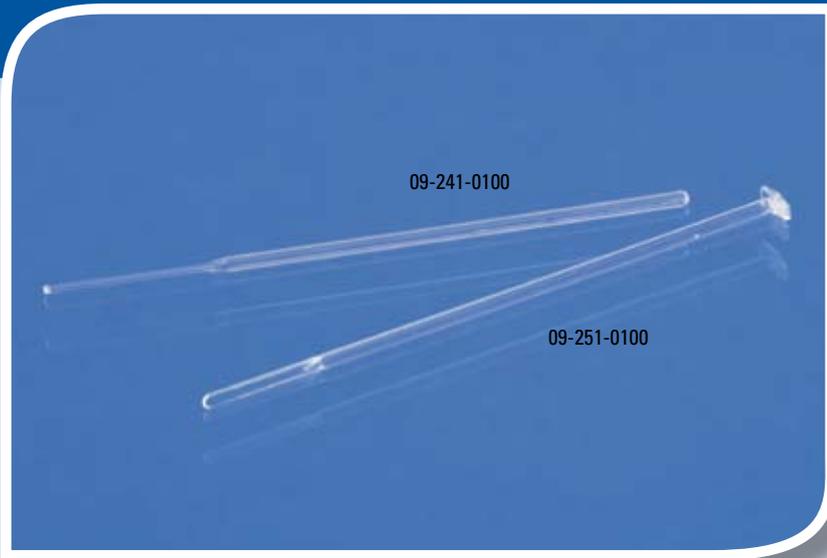
Ref.-No.	Material applicator	Size (mm)	Head size (mm)	Packaging (bag/ctn)
09-100-0100	Alu	150	mini (ø 2)	100/10,000
09-113-0105	PP white	2.5/150	small (ø 4 - 5.5)	100/4,000
09-119-0100	Wood	2.2/150	small (ø 4 - 5.5)	100/10,000
09-129-0100	Wood	2.5/200	small (ø 4 - 5.5)	100/8,000
09-143-0105	PP white	4/150	big (ø 10 - 12)	50/1,000
09-159-0100	Wood	3/200	big (ø 10 - 12)	50/750

Sterile Medical Cotton Applicators

- Corresponding to EN ISO 13485 and Directive 93/42/EEC Annex V for medical products
- Packed in the peel-pack individually or in pairs
- ETO-sterile

Ref.-No.	Material applicator	Size (mm)	Head size (mm)	Peel-Pack	Packaging (bag/ctn)
09-100-9100	Alu	150	mini (ø 2)	individually	100/2,500
09-113-9105	PP white	2.5/150	small (ø 4 - 5.5)	individually	100/2,500
09-119-9100	Wood	2.2/150	small (ø 4 - 5.5)	individually	100/2,500
09-119-8100				pairs	100/3,000
09-143-9105	PP white	4/150	big (ø 10 - 12)	individually	100/500
09-143-8105				pairs	100/500

Stirring Spatulas



- Made from polystyrene, crystal clear
- Optimally stirring rod for a wide variety of laboratory applications
- Several uses, for example mixing samples and solutions in test tubes, resolution of substrate, additions of small reagent volumes, releasing blood clots from the side of test tube walls...

Ref.-No.	Material	Size (mm)	Description	Packaging (bag/ctn)
09-241-0100	PS	3/120	stirring spatula	500/10,000
09-251-0100	PS	3/120	stirring spatula with mixing device	500/6,000

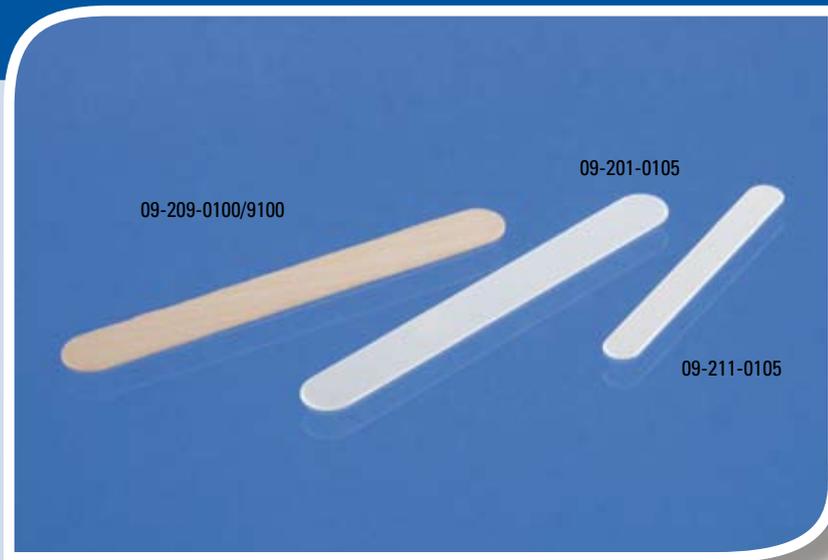
Sterile Applicators in Tube with Screw Closure



- For laboratory applications
- Wooden applicator with small head, fitted and gammasterile

Ref.-No.	Material	Size Tube (mm)	Volume (ml)	Colour Cap	Description	Packaging (bag/ctn)
09-303-4101	PP/HD-PE	16/100	13	blue	fitted, sterile	100/1,000

Medical Tongue Depressors



- Corresponding to EN ISO 13485
- Made out of wood and plastic

Ref.-No.	Material	Size (mm)	Description	Packaging (bag/ctn)
09-209-0100	Wood	150	tongue depressor	100/5,000
09-201-0105	PS white	150	tongue depressor	100/1,500
09-211-0105	PS white	100	tongue depressor	100/4,000

Sterile Medical Tongue Depressors

- Corresponding to EN ISO 13485 and Directive 93/42/EEC Annex V for medical products
- Packed individually in the peel-pack
- ETO-sterile

Ref.-No.	Material	Size	Description (mm)	Peel-Pack	Packaging (bag/ctn)
09-209-9100	Wood	150	tongue depressor	individually	50/1,000

Böttger - our location in the heart of Europe



Our location Bodenmais is in the centre of the triangle formed by the cities of Munich - Prague - Vienna. The excellent infrastructure ensures that your products reach you easily, quickly and on schedule. To this end we determine the optimal route for the transportation for your goods – whether by rail, road, water or air.

Material Properties

	Polystyrene	Polypropylene	Polyethylene
Abbreviation	PS	PP	HD-PE High Density LD-PE Low Density
Optical properties	transparent, shiny surface, 90% light transmission (at 400 - 800 nm)	translucent, shiny surface	translucent to opaque, waxy surface
General mechanical properties	low elongation at break and heat resistance, excellent electrical insulation properties, not suitable for high centrifugal acceleration	High breaking strength resistant to stress cracking, dimensionally stable, high stiffness.	Tensile strength and surface hardness relatively low, high toughness, soft to stiff sensitive to stress cracking, water-repellent.
Autoclavability	not suitable	Products made of PP can be autoclaved to 121°C without significant loss of mechanical properties. The user must check whether other product properties are affected with regard to the desired application.	not suitable
Maximum continuous service temperature	60 - 70°C	100 - 110°C	HD-PE 70 - 80°C LD-PE 60 - 75°C
Short-term maximum service temperature ¹	75 - 80°C	120 - 140°C	HD-PE 90 - 120°C LD-PE 80 - 90°C
Use in minus temperature range ²	not really suitable	limited suitability ¹	limited suitability ¹
Density g/cm³	1.05	0.90	HD-PE 0.95 LD-PE 0.92
Flammability	flammable	flammable	flammable
Ignition temperature	300 - 400°C	300 - 360 °C	350 - 360 °C
Moisture absorption	< 0,1 %	< 0,1 %	< 0,1 %
General chemical resistance	PS is resistant to salt solutions, lyes, non-oxidising acids, alkalis and alcohols. Petrol, essential oils, highly oxidising agents and flavouring agents attack PS with the formation of stress cracks	PP is resistant to aqueous solutions of inorganic salts, acids, alkalis and organic solvents up to 60°C. Alcohols, esters and ketones do not attack PP either. Aromatic and halogenated hydrocarbons, oxidising substances such as concentrated nitric acid and at higher temperatures, fats, oils and waxes swell PP.	PE has a high resistance to chemicals. The chemical resistance of HD-PE is generally higher than that of LD-PE. Aqueous acids, lyes, alcohol, oil, water and salt solutions do not attack PE. Concentrated oxidising acids such as nitric acid and halogens cause decomposition.
Disposal	PS is a pure hydrocarbon compound and therefore environmentally neutral for disposal. In controlled combustion no harmful substances are produced.	PP is a pure hydrocarbon compound and therefore environmentally neutral for disposal. In controlled combustion no harmful substances are produced.	PE is a pure hydrocarbon compound and therefore environmentally neutral for disposal. In controlled combustion no harmful substances are produced.

¹ The suitability depends on the type of plastic used in each case and the type of load.

² Note: The plastics become more brittle at low temperatures. Use of products in the negative temperature range should be fully tested beforehand with the appropriate application. This information is intended to serve as a guideline and does not represent a guarantee of product properties.

Chemical Resistance

Agent	LD-PE		HD-PE		PP		PS	
	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C
Acetaldehyde	G	N	G	L	G	N	N	N
Acetic acid, 5%	E	E	E	E	E	E	E	G
Acetic acid, 50%	E	E	E	E	E	E	G	G
Acetone	E	G	E	E	E	G	N	N
Allyl alcohol	E	E	E	E	E	E	G	L
Aluminium salts	E	E	E	E	E	E	G	G
Amino acid	E	E	E	E	E	E	E	E
Ammonia	E	E	E	E	E	E	G	L
Ammonium carbonate	E	E	E	E	E	E	E	E
Ammonium phosphate	E	E	E	E	E	E	G	G
Ammonium sulphate	E	E	E	E	E	E	G	G
n-amyl acetate	L	L	G	L	L	L	N	N
Amyl chloride	N	N	L	N	N	N	N	N
Aniline	G	G	G	G	G	L	N	N
Benzene	N	N	L	L	L	N	N	N
Benzine	L	N	G	G	G	L	N	N
Benzyl alcohol	G	L	G	G	G	L	N	N
Boric acid	E	E	E	E	E	E	E	G
Bromine	N	N	N	N	N	N	N	N
n-butyl alcohol	E	G	E	E	E	G	G	G
Butyric acid	L	N	G	L	L	N	N	N
Calcium chloride	E	E	E	E	E	E	E	E
Calcium hydroxide, sat.	E	E	E	E	E	E	G	G
Calcium sulphate	E	E	E	E	E	E	G	G
Carbon tetrachloride	L	N	L	L	L	N	N	N
Chlorine 10% in water	G	N	G	L	L	N	N	N
Chlorobenzene	N	N	N	N	N	N	N	N
Chloroform	L	N	L	N	L	N	N	N
Chromic acid, 10%	E	E	E	E	E	E	E	E
Chromic acid, 50%	E	E	E	E	G	L	L	L
Citric acid, 10%	E	E	E	E	E	E	E	G
Cresol	N	N	L	N	G	L	N	N
Cyanide	E	E	E	E	E	E	G	G
Cyclohexanol	L	L	G	L	L	L	L	N
Diethyl ketone	G	L	G	G	G	G	N	N
Dimethylsulphoxide	E	E	E	E	E	E	E	G
1,4-dioxane	G	L	G	G	L	L	N	N
Ethanol, 95%	E	E	E	E	E	E	E	E
Ethyl acetate	G	L	G	G	G	L	N	N
Ethyl benzene	L	N	G	L	L	N	N	N
Ethylene glycol	E	E	E	E	E	E	E	E
Ethylene oxide	L	L	G	L	L	L	N	N
Fluorine	L	N	G	N	L	N	N	N
Fluorides	E	E	E	E	E	E	G	G
Formaldehyde, 10%	E	E	E	E	E	E	L	N
Formaldehyde, 40%	G	L	E	G	E	G	N	N
Formic acid 100%	E	G	E	E	E	G	L	L
Glacial acetic acid	E	G	E	E	E	G	N	N
Glycerin	E	E	E	E	E	E	E	E
Heating oil	L	N	G	L	E	G	N	N
Hexane	L	L	G	L	G	L	N	N
Hydrochloric acid, 5%	E	E	E	E	E	E	E	E
Hydrochloric acid, 20%	E	E	E	E	E	E	E	E
Hydrochloric acid, 35%	E	E	E	E	E	G	L	L
Hydrofluoric acid, 4%	E	G	E	E	E	G	G	L
Hydrofluoric acid, 48%	E	G	E	E	E	G	N	N
Hydrogen peroxide, 3%	E	E	E	E	E	E	E	G
Hydrogen peroxide, 30%	E	E	E	E	E	G	E	G
Iron chloride	E	E	E	E	E	E	E	E
Isobutanol	E	E	E	E	E	E	G	G

E = Excellent.

Plastic is absolutely resistant to this substance.

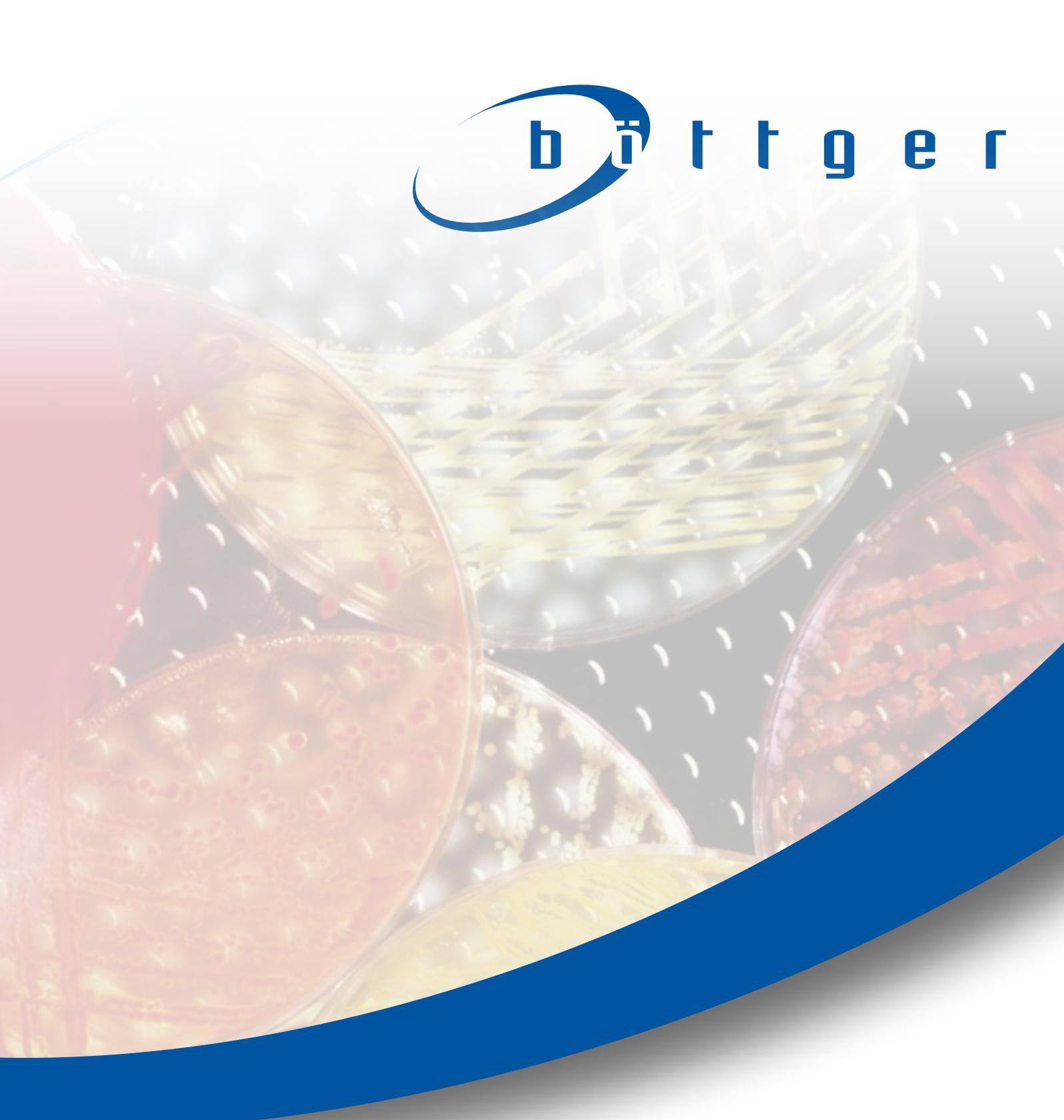
G = Good.

Exposure to this substance over a long period causes little or no damage.

Agent	LD-PE		HD-PE		PP		PS	
	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C
Isopropanol	E	E	E	E	E	E	E	G
Isopropyl acetate	G	L	E	G	G	L	N	N
Kerosene	L	N	G	G	G	L	N	N
Lactid acid, 10%	E	E	E	E	E	E	G	G
Lactid acid, 90%	E	E	E	E	E	E	G	G
Lead acetate	E	E	E	E	E	E	E	E
Metal salts, dissolved	E	E	E	E	E	E	G	G
Methanol	E	E	E	E	E	E	L	N
Methylene chloride	L	N	G	L	L	N	N	N
Methyl ethyl ketone	G	L	G	G	G	L	N	N
Methyl propyl ketone	G	L	E	G	G	L	N	N
Mineral oil	G	L	E	E	E	E	E	E
Nitric acid, 10%	E	E	E	E	E	E	G	N
Nitric acid, 50%	G	L	G	G	L	N	N	N
Nitric acid, 70%	L	N	G	N	N	N	N	N
Oleic acid	L	N	G	G	G	L	G	G
n-octane	E	E	E	E	E	E	N	N
Oxalic acid	E	E	E	E	E	E	E	G
Ozone	L	L	G	L	L	L	N	N
Perchloroethylene	N	N	N	N	N	N	N	N
Perchloric acid	G	N	G	N	G	N	G	L
Phenol	L	N	G	G	G	L	N	N
Phosphoric acid, 10%	E	E	E	E	E	E	G	G
Phosphoric acid, 85%	E	E	E	E	E	G	E	G
Phosphorus trichloride	G	L	G	G	G	L	N	N
Potassium acetate	E	E	E	E	E	E	E	E
Potassium bromide	E	E	E	E	E	E	E	E
Potassium carbonate	E	E	E	E	E	E	E	E
Potassium hydroxide, 5%	E	E	E	E	E	E	G	G
Potassium hydroxide, conc.	E	E	E	E	E	E	G	G
Potassium permanganate	E	E	E	E	E	E	L	L
Propylene glycol	E	E	E	E	E	E	E	E
Pyridine	L	N	G	L	L	N	N	N
Saccharose	E	E	E	E	E	E	E	E
Salicylic acid, saturated	E	E	E	E	E	E	E	G
Silver acetate	E	E	E	E	E	E	G	G
Silver nitrate	E	G	E	E	E	G	G	L
Sodium carbonate	E	E	E	E	E	E	E	E
Sodium chloride, saturated	E	E	E	E	E	E	E	E
Sodium dichromate	E	E	E	E	E	E	E	E
Sodium hydroxide, 1%	E	E	E	E	E	E	G	G
Sodium hydroxide, 50%	E	E	E	E	E	E	G	G
Sodium hypochlorite, 15%	E	E	E	E	E	E	G	G
Sodium nitrate	E	E	E	E	E	E	E	E
Sodium sulphate	E	E	E	E	E	E	E	E
Sulphides	L	N	G	L	L	N	N	N
Sulphuric acid, 6%	E	E	E	E	E	E	E	G
Sulphuric acid, 20%	E	E	E	E	E	G	E	G
Sulphuric acid, 60%	E	G	E	E	E	G	G	N
Sulphuric acid, 98%	G	G	G	G	L	N	N	N
Tannic acid, 20%	E	E	E	E	E	E	G	G
Tetrahydrofuran	L	N	L	L	L	L	N	N
Toluene	L	N	G	G	L	N	N	N
Trichloroacetic acid	L	N	G	L	L	N	N	N
Trichloroethane	N	N	L	N	N	N	N	N
Turpentine oil	L	N	G	L	G	L	N	N
Urea	E	E	E	E	E	E	E	G
Xylene	L	N	L	L	L	N	N	N
Zinc chloride	E	E	E	E	E	E	E	E

L = Limited. Under constant exposure plastic may suffer from hairline cracks, deterioration of mechanical strength or discoloration.

N = Not resistant. Plastic is unsuitable for use in connection with this substance. Use is not recommended.



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