boettger



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boettger

FOREWORD

Dear business partners,
valued customers!

You are holding our updated product catalog in your hands. This comprehensive overview of our product portfolio serves as a practical guide while also providing details on all technical specifications of our products.

Paul Boettger GmbH & Co. KG has been managed as a family business for generations; today, it is an innovative, modern, and flexible company that sets benchmarks in its industry.

With the acquisition of shares by our partner consortium on July 1, 2026, we have paved the way for continued stable and long-term development, in keeping with the vision of the former owner families. We develop and manufacture our products in the heart of Europe with the utmost expertise and care. This combination benefits you as a customer: on the one hand, through constant technological progress, superior product quality, and forward-looking management; on the other, through streamlined structures, short lines of communication, and a genuine commitment to customer proximity.

Our core values – fairness, openness, and personal contact with our customers – remain at the forefront of everything we do as we work together to find perfect solutions.

You are right to place your trust in us: expertise, flexibility and reliability are valuable assets that we bring to the table to build a long-term partnership with you – for your success and your satisfaction!

Karl Berger,
Managing Partner

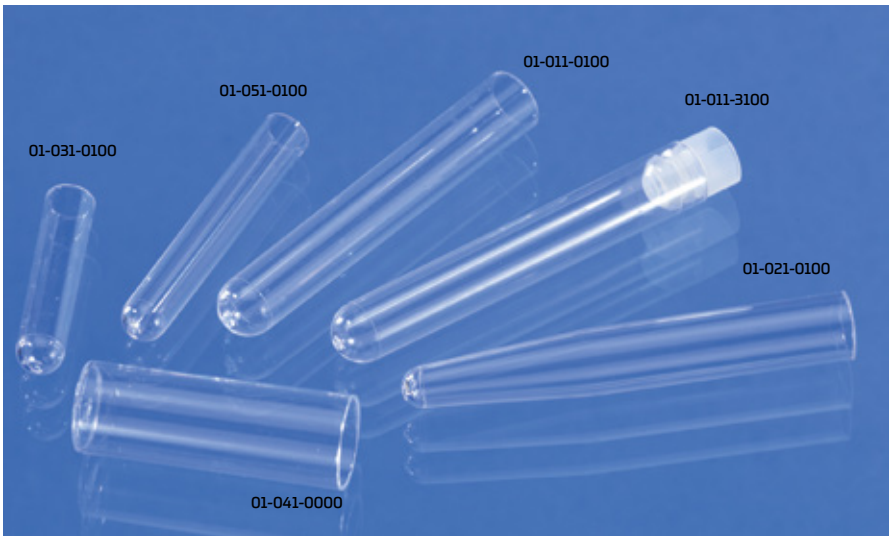


TEST TUBES



Test Tubes, Polystyrene (PS)

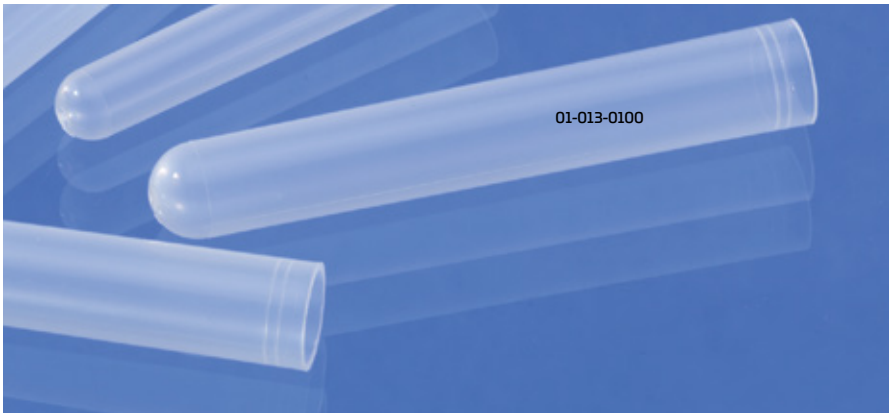
- carefully selected, high-quality polystyrene
- high optical transparency
- optimal visibility of contents
- perfect rotation
- good centrifugal loading capacity



REF	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	12	round, irradiated	100/1,000	assembled
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

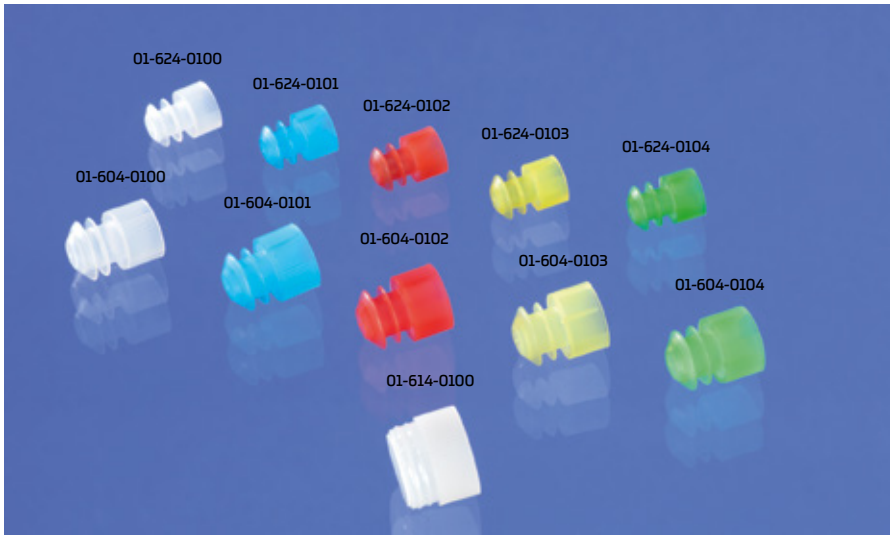
Test Tubes, Polypropylene (PP)

- 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	Material	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)	Matching Plugs
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	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	plug	1,000/5,000

Boettger – proven in the international market



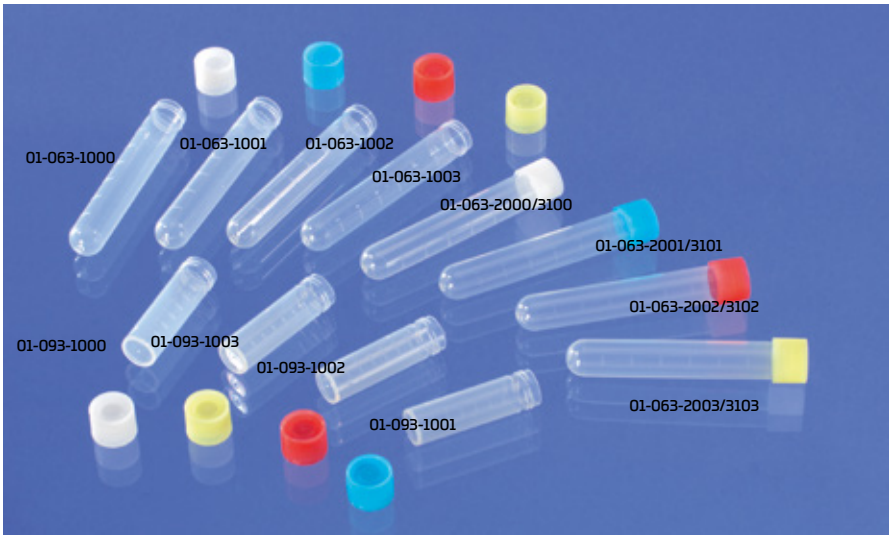
We always demand the exceptional of ourselves. Our high standards for our own work have made us a reliable supplier and secured us an outstanding position in international competition for many years.

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.

Test Tubes, Screw Cap

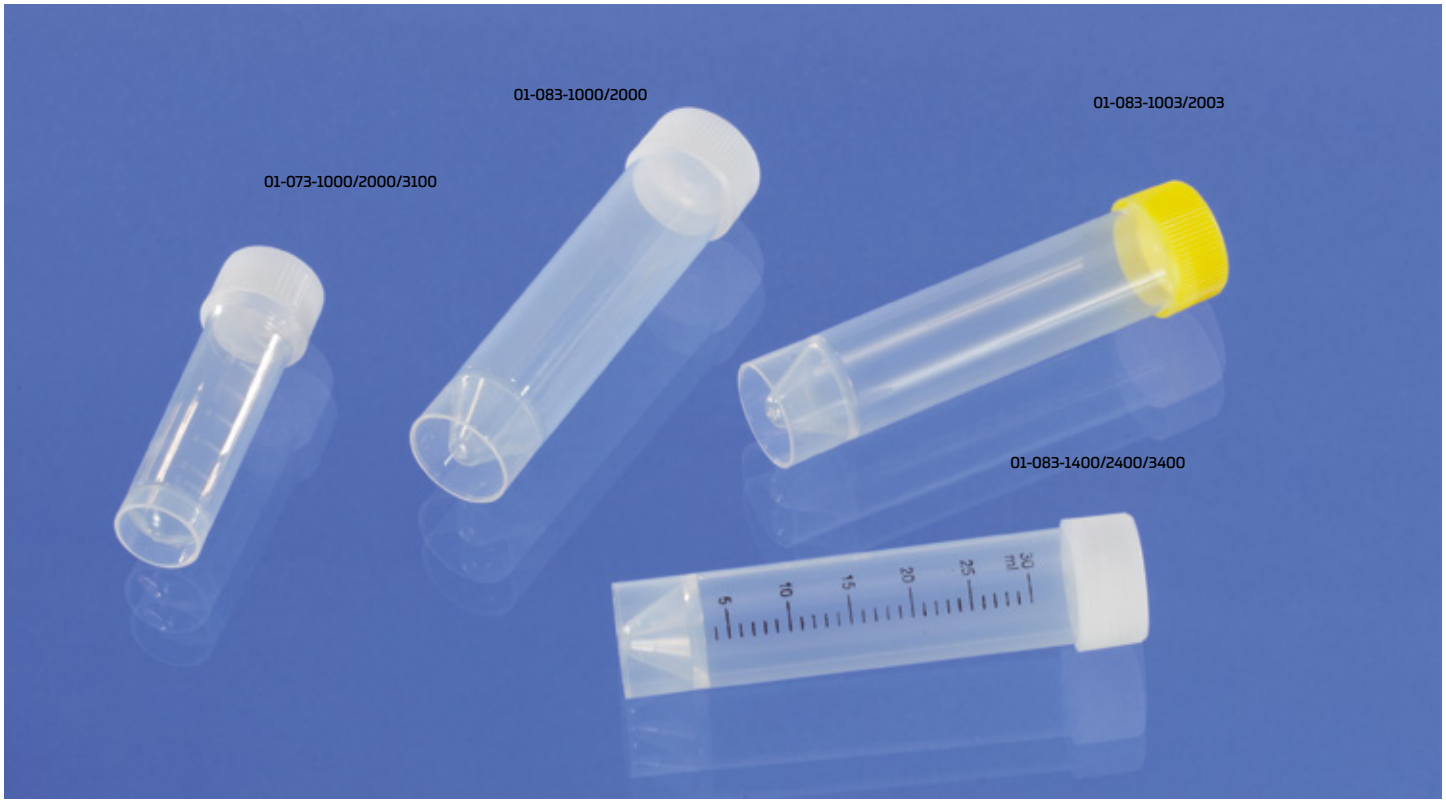
- for safe transportation and storage of samples
- made from selected polypropylene
- tight sealing screw cap made from polyethylene
- available with enclosed or fitted screw cap, standard-hygienic or irradiated
- for mailing containers see page 36 ff



REF	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 [1)]				red		
01-093-1003 [1)]				yellow		
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	250/1,000
01-063-2001				blue		
01-063-2002				red		
01-063-2003				yellow		
01-063-3100	PP/HD-PE	16/100	13	natural	fitted, irradiated	100/1,000
01-063-3101				blue		
01-063-3102				red		
01-063-3103				yellow		

[1)] on request

Test Tubes, Screw Cap

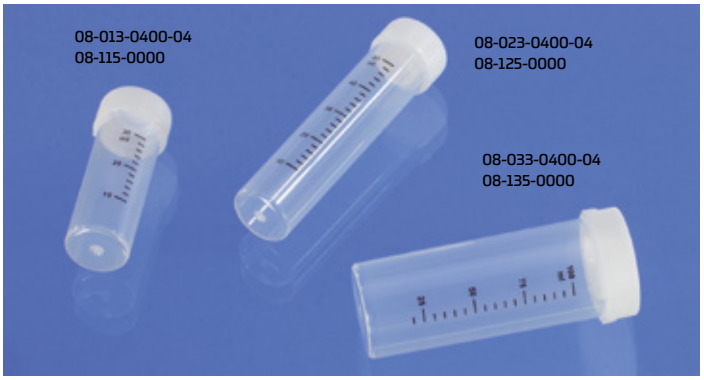


REF	Material	Size (mm)	Volume (ml)	Cap Colour	Description	Packaging (bag/ctn)
01-073-1000	PP/HD-PE	20/76	15	natural	screw cap enclosed	1,000/1,000
01-073-2000					screw cap fitted	250/1,000
01-073-3100					fitted, irradiated	100/1,000
01-083-1000[1)]	PP/HD-PE	25/107	30	natural	screw cap enclosed	500/500
01-083-2000[1)]					screw cap fitted	100/500
01-083-1003[1)]	PP/HD-PE	25/107	30	yellow	screw cap enclosed	500/500
01-083-2003[1)]					screw cap fitted	100/500
01-083-1400	PP/HD-PE	25/107	30	natural	screw cap enclosed, printed graduation	500/500
01-083-2400					screw cap fitted, printed graduation	100/500
01-083-3400					fitted, irradiated, printed graduation	100/500

[1)] on request

Tubes Flat Bottom, Screw Cap

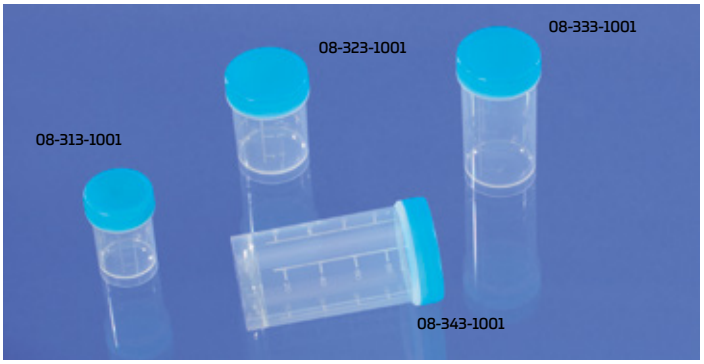
- for safe transportation and storage of samples
- made from selected, especially clear polypropylene
- tight sealing screw cap made from polyethylene
- please note:
  tubes and screw caps must be ordered separately



REF	Material	Size (mm)	Volume (ml)	Description	Colour	Packaging (bag/ctn)
08-013-0400-04	PP	30/85	40	tube, printed graduation	transparent	500/500
08-115-0000	HD-PE			cap	natural	500/500
08-023-0400-04	PP	30/126	60	tube, printed graduation	transparent	300/300
08-125-0000	HD-PE			cap	natural	300/300
08-033-0400-04	PP	44/114	120	tube, printed graduation	transparent	250/250
08-135-0000	HD-PE			cap	natural	250/250

Tubes Round Bottom, Standing Rim, Screw Cap

- 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	Material	Size (mm)	Volume (ml)	Description	Cap Colour	Packaging (bag/ctn)
08-313-1001	PP/HD-PE	31/48	20	screw cap enclosed	blue	500/1,000
08-323-1001	PP/HD-PE	39/55	35	screw cap enclosed	blue	500/500
08-333-1001	PP/HD-PE	39/74	50	screw cap enclosed	blue	500/500
08-343-1001	PP/HD-PE	48/80	100	screw cap enclosed	blue	250/250

MICRO TUBES / VIALS



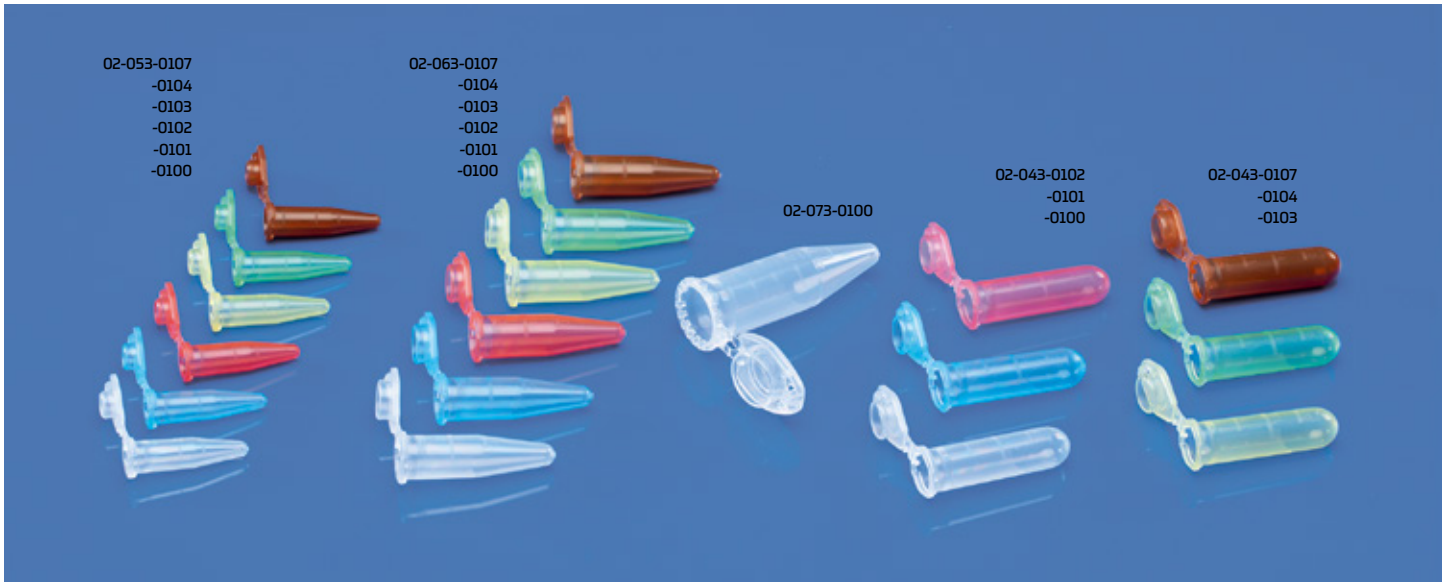
Micro Tubes **EASY FIT**



- made from selected high-quality and biologically inert polypropylene
- easy closure of leak-free cap
- enough space for markings
- cover membrane easily pierceable
- rounded inside bottom for better recovery of pellets or fluids

REF	Material	Volume (ml)	Tube Colour	Description	Packaging (bag/ctn)
02-013-0100	PP	1.5	natural	without cap	1,000/10,000
02-023-0100	PP	1.5	natural	EasyFit with cap	1,000/8,000
02-023-0101			blue		
02-023-0102			red		
02-023-0103			yellow		
02-023-0104			green		

Micro Tubes **SAFE FIT**



- from selected, especially clear polypropylene
- high speed protected
- special closing mechanism, secure and tight closure
- precise sealing for low evaporation rate

REF	Material	Volume (ml)	Tube Colour	Description	Packaging (bag/ctn)
02-053-0100	PP	0.5	natural	SafeFit, 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	SafeFit, 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	SafeFit, 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)		
02-073-0100	PP	5.0	natural		
02-073-0107			ambra (light protection)		

Vials for Cellcounters

- optically clear, parallel surfaces
- cover fitted, free of dust or particles



REF	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

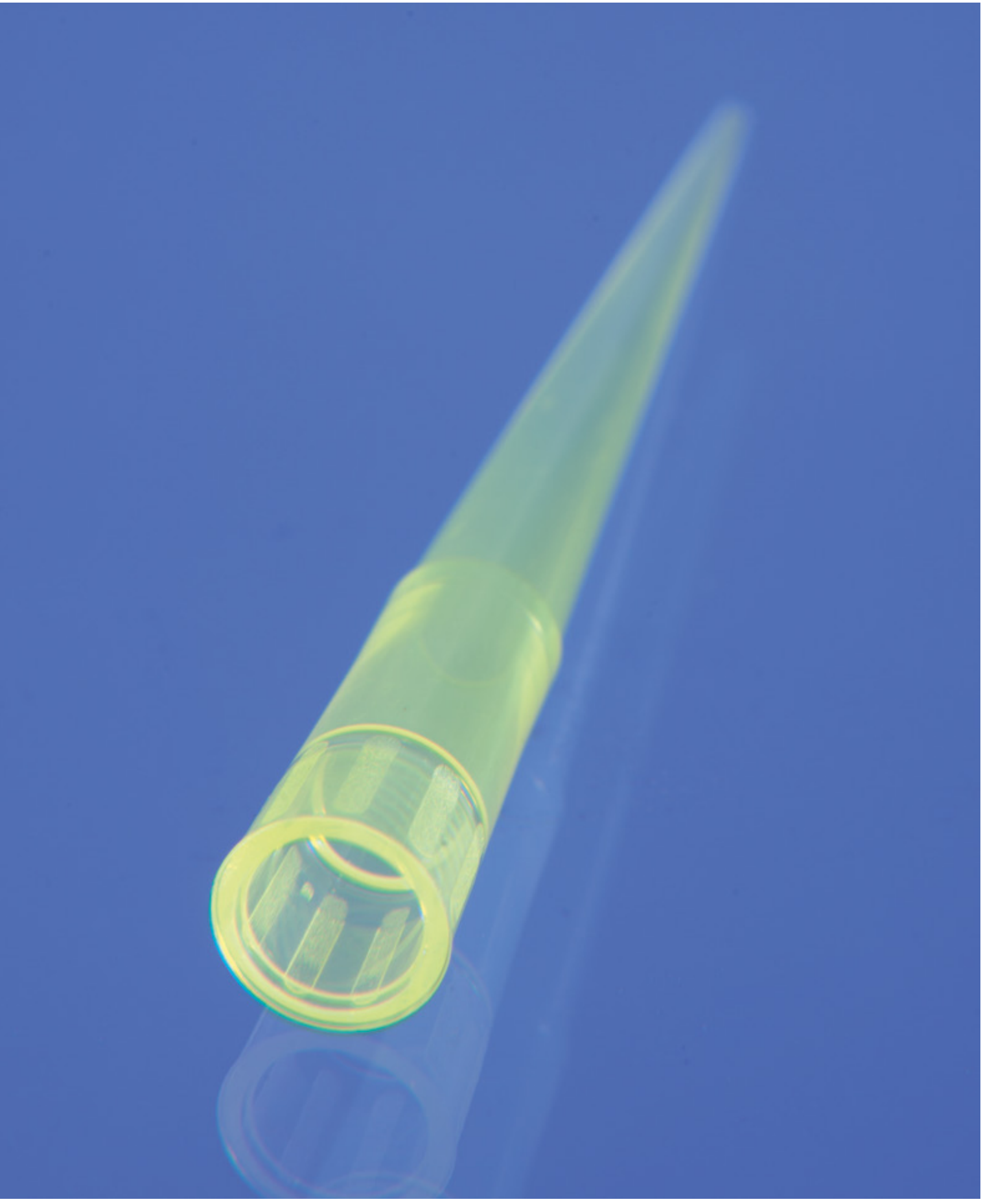
Boettger – customer oruentation and quality leadership

Because manufacturing and delivery alone are far from enough: We maintain an active dialogue and exchange of experience with you to stay closer to the market and continuously improve our processes.

- **Open and rapid communication**
- **Efficient order processing with ongoing status updates**
- **Reliability at all times**
- **Individual attention to customer requirements, accompanied by constructive solution proposals**
- **Expertise regarding all product-related matters and provision of relevant information**
- **Continuous improvement of our products and processes**

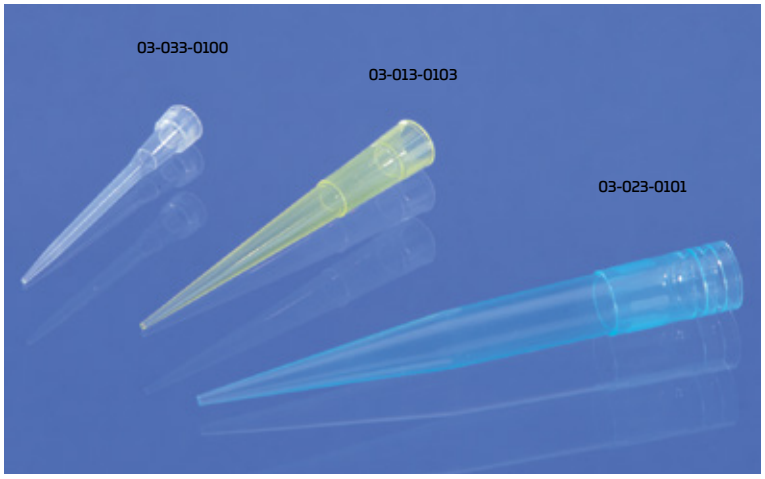


PIPETTE TIPS



Pipette Tips, bulk

- made from selected, hydrophobic polypropylene
- optimal surface quality
- precise and centric opening of tip
- optimised and universal fit
- easy removal



REF	Material	Volume (µl)	Colour	matching for	Packaging (bag/ctn)
03-013-0103	PP	200	yellow	Eppendorf, Brand, Gilson, Socorex, Labsystems, Finn, BioHit	1,000/25,000
03-023-0101	PP	1,000	blue	Eppendorf, Brand, Gilson, Socorex, Labsystems, Finn, BioHit	1,000/10,000
03-033-0100	PP	20	crystal	Eppendorf, Brand, Gilson, Socorex, Labsystems, Finn, BioHit	1,000/10,000

Boettger – internal standards as basis and 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.

Boettger as a company is synonymous with:

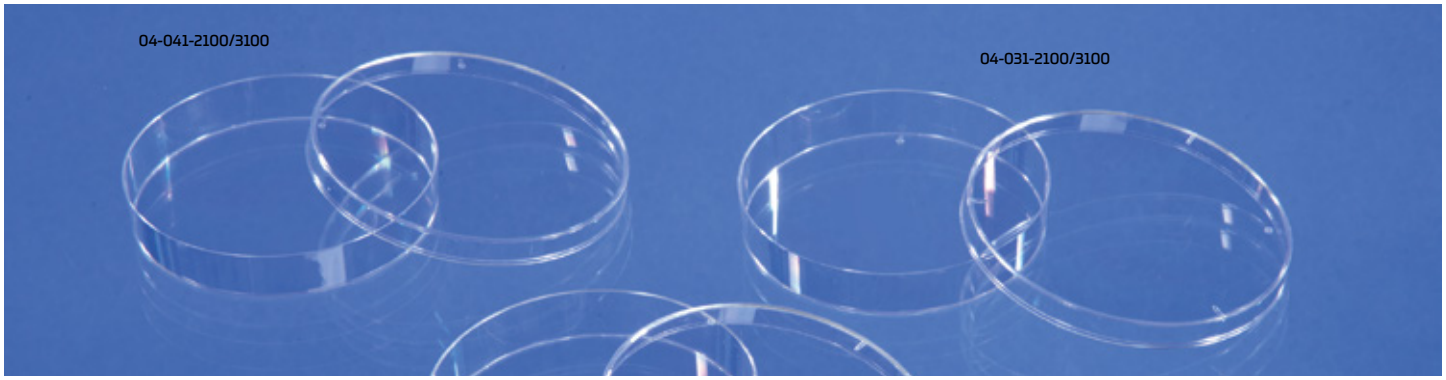
- **credibility and integrity**
- **ambitious goals without complacency**
- **striving for constant improvement**
- **punctual delivery of perfect quality**
- **fast and dedicated service**



PETRI DISHES



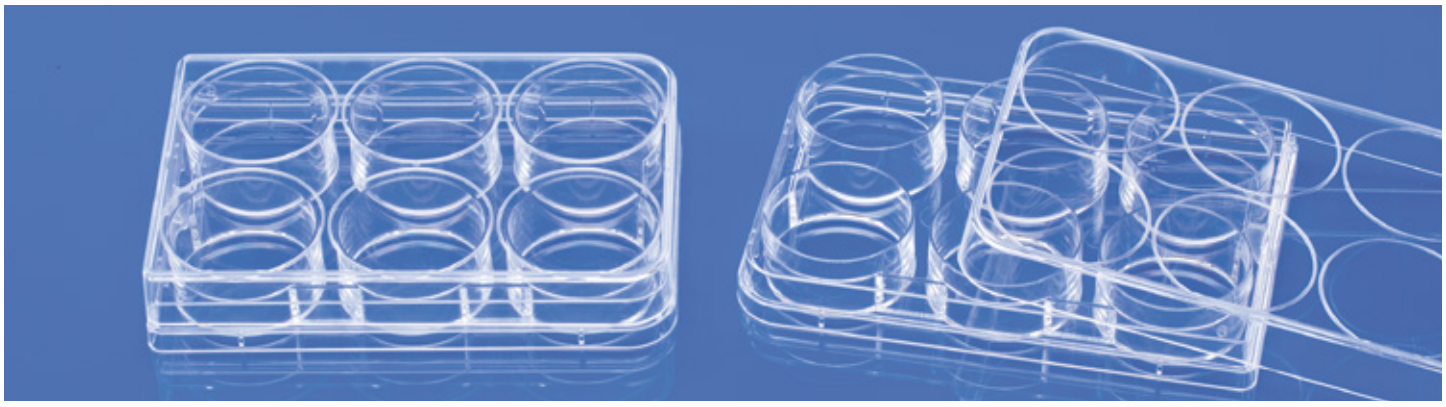
Petri Dishes



- from selected polystyrene, crystal clear
- safe stacking, rigid surfaces, heat-resistant
- suitable for automatic filling

REF	Material	Size (mm)	Vents	Description	Packaging (bag/ctn)
04-031-2100	PS	94/16	with	LAF production	20/480
04-031-3100				irradiated	
04-041-2100	PS	94/16	without	LAF production	20/480
04-041-3100[1)]				irradiated	

Macro Plates



- for all bacteriological applications using subdivided culture plate
- simple and space-saving alternative to six conventional 35 mm-petri dishes

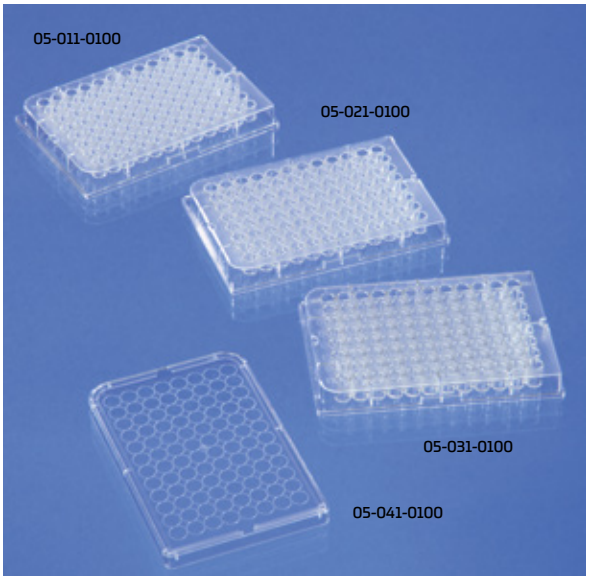
REF	Material	Volume (ml/Well)	Description	Packaging (bag/ctn)
05-061-2100[1)]	PS	15	6 wells, with cover	2/100

[1)] on request



Micro Plates 96-Well

- made from carefully selected polystyrene, crystal clear
- different well-types for different applications
- 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 marking on the side surface
- covers with condensation-rings to avoid medium-losses and uneven evaporation
- lid orientation corners reduce risk of cross-contaminations



U-Well

- no edges, therefore simple and clean to pipette into
- for +/– evaluations
- especially suitable for agglutination-tests

V-Well

- especially good for releasing the „last drop" from the pipette
- for +/– evaluations
- suitable for storage of samples

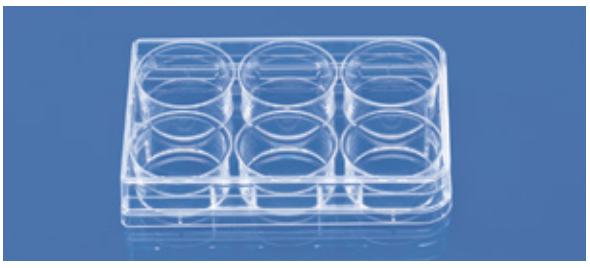
F-Well

- for precise optical measurements
- for microscopic applications (Bottom Reading)
- rims at the bases prevent a scuffing of the optical surface

REF	Material	Well	Volume (µl)	Description	Packaging (bag/ctn)
05-011-0100	PS	96 U	345	standard hygienic	5/100
05-021-0100	PS	96 V	335	standard hygienic	5/100
05-031-0100	PS	96 F	405	standard hygienic	5/100
05-041-0100	PS	96		cover, standard hygienic	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



REF	Material	Volume (ml)	Description	Packaging (bag/ctn)
05-061-2100[1)]	PS	15	standard hygienic, with cover	2/100

[1)] on request

URINE CUPS / UNIVERSAL CONTAINERS



Urine Cups, Snap Cap (red)



- ideal for collecting and storage of urine samples
- optimal visibility of content, graduated
- fluid tight lid, easy to close
- frosted surface on cups and lids for identification marking

REF	Material	Colour Cap	Volume (ml)	Description	Packaging (bag/ctn)
06-013-0100	PP		125	cup without cap, subpackaged	50/1,000
06-044-0002	LD-PE	red		cap with pouring spout	500/1,000
06-044-0102				subpackaged	100/1,000
06-044-1002	PP/LD-PE	red	125	cup with cap, pouring spout	500/500
06-044-1102				subpackaged	cups 50/500 caps 100/500

Universal Containers, Snap Cap



REF	Material	Colour Cap	Volume (ml)	Description	Packaging (bag/ctn)
06-013-0100	PP		125	cup without cap	50/1,000
06-013-0005 [1)]	PP white				-/1,000
06-023-0000	PP		200	cup without cap	-/1,000
06-023-0006 [1)]	PP black				-/1,000
06-034-0001	LD-PE	blue		cap	500/1,000
06-034-0002 [1)]		red			
06-034-0000 [1)]		natural			
06-034-0006 [1)]		black			
06-034-1001	PP/LD-PE	blue	125	cup with cap	500/500
06-034-1101 [1)]				subpackaged	cups 50/500 caps 100/500
06-044-0001 [1)]	LD-PE	blue		cap with pouring spout	500/1,000
06-044-0003 [1)]		yellow			
06-044-4103	PP/LD-PE	yellow	125	cup with cap, assembled, irradiated	1/150

[1)] on request

Urine Cups, Screw Cap (green)



- 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

REF	Material	Colour Cap	Volume (ml)	Description	Packaging (bag/ctn)
06-053-0100	PP		100	cup without cap, subpackaged	25/1,000
06-065-0004	HD-PE	green		screw cap	250/1,000
06-065-0104				subpackaged	100/1,000
06-065-1004	PP/HD-PE	green	100	cup with screw cap	500/500
06-065-1104				subpackaged	cups 25/500 caps 100/500

Universal Containers, Screw Cap

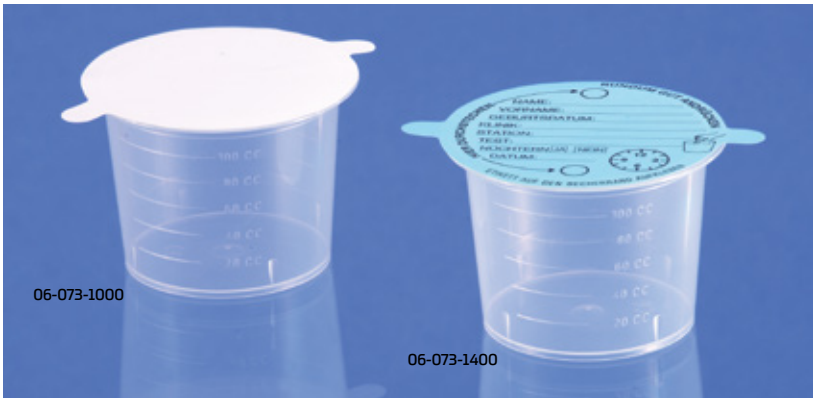


REF	Material	Colour Cap	Volume (ml)	Description	Packaging (bag/ctn)
06-053-0100	PP		100	cup without cap	25/1,000
06-065-0000 [1]		natural		screw cap	250/1,000
06-065-0001 [1]		blue			250/1,000
06-065-0002 [1]		red			250/1,000
06-065-0003 [1]		yellow			250/1,000
06-065-2103-05	PP/HD-PE	yellow	100	cup with screw cap, fitted, standard hygienic	5/240
06-065-3103	PP/HD-PE	yellow	100	fitted, irradiated	5/240
06-065-4103				fitted, irradiated	1/150

[1] on request

Urine Cups/Universal Containers, 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	Material	Lid	Volume (ml)	Description	Packaging (bag/ctn)
06-073-1400	PP	with print	100	urine cup with lid	-/1,000
06-073-1000		without print		universal container with lid	-/1,000

Boettger – Made in Germany puts us a step ahead

We secure our German base through close customer relationships, tailored solutions, and lean, flexible structures. At the same time, we benefit from the expertise and reliability of our long-standing partners.
Close dialogue with our customers enables the continuous optimization of our production processes:

- We can rapidly expand capacity in response to rising demand
- We constantly modernize and utilize the latest production technologies
- We continuously optimize our operational workflows

Boettger is innovative and flexible – grounded yet open to the world.

As our customer, you benefit directly from this philosophy; we look forward to tackling your challenges.



MEDICINE CUPS



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	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		white	caps, bulk	750/3,750
06-114-0105			subpackaged	75/3,750

Boettger – 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 CO_2 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.

STOOL CONTAINERS / UNIVERSAL CONTAINERS



Stool Containers with Plug

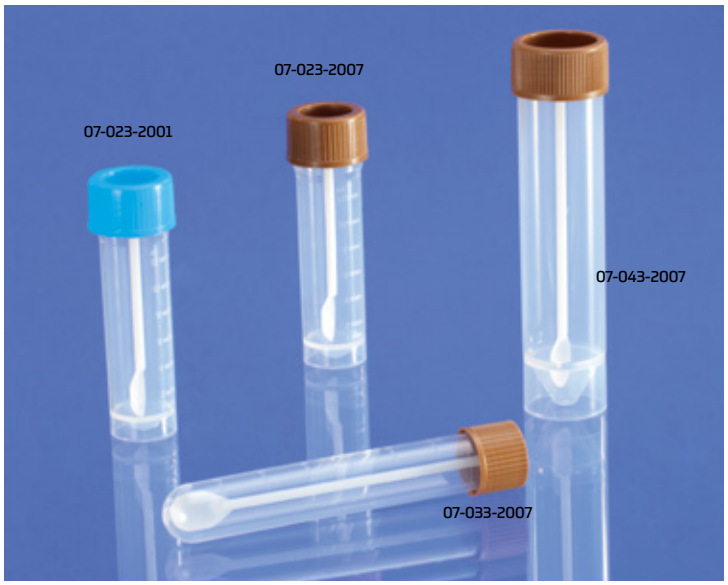
- crystal clear
- flat bottom
- fitted push-in-plug with incorporated spoon
- spoon for bean-size stool-samples



REF	Material Tube	Colour Plug	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-011-2001	PS	blue	22/62	20	fitted	1,000/1,000

Stool Containers, Screw Closure

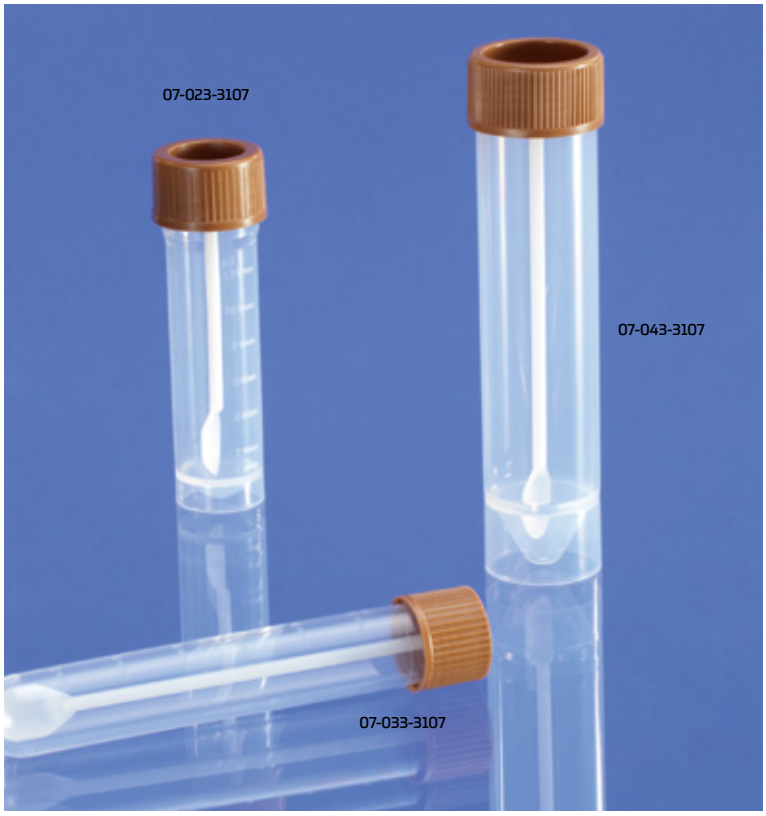
- screw cap offers optimal hygiene, reliable and safe sealing
- large sized spoon for bean-size stool-samples
- corresponding to P650, ADR for mailing of stool samples
- for matching mailing-containers see page 36 ff



REF	Material Tube	Colour Plug	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-023-2001 [1)]	PP	blue	20/76	15	fitted	250/1,000
07-023-2007	PP	brown	20/76	15	fitted	250/1,000
07-033-2007	PP	brown	16/100	13	fitted	250/1,000
07-043-2007	PP	brown	25/107	30	fitted	100/500

[1)] on request

Universal Containers with Spoon, Screw Closure, Irradiated



- universal containers for samples, irradiated
- for matching mailing-containers see page 36 ff

REF	Material Tube	Colour Screw Cap	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-023-3107	PP	brown	20/76	15	fitted, irradiated	100/1,000
07-033-3107	PP	brown	16/100	13	fitted, irradiated	100/1,000
07-043-3107	PP	brown	25/107	30	fitted, irradiated	100/500

Boettger – quality to the highest degree

To be better means to do more.

Through strategic investment and constant adjustment to dynamic technical changes, Boettger 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 13485.

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.

Our customers‘ satisfaction is the purpose of our actions – and our customers‘ success is our success, too!



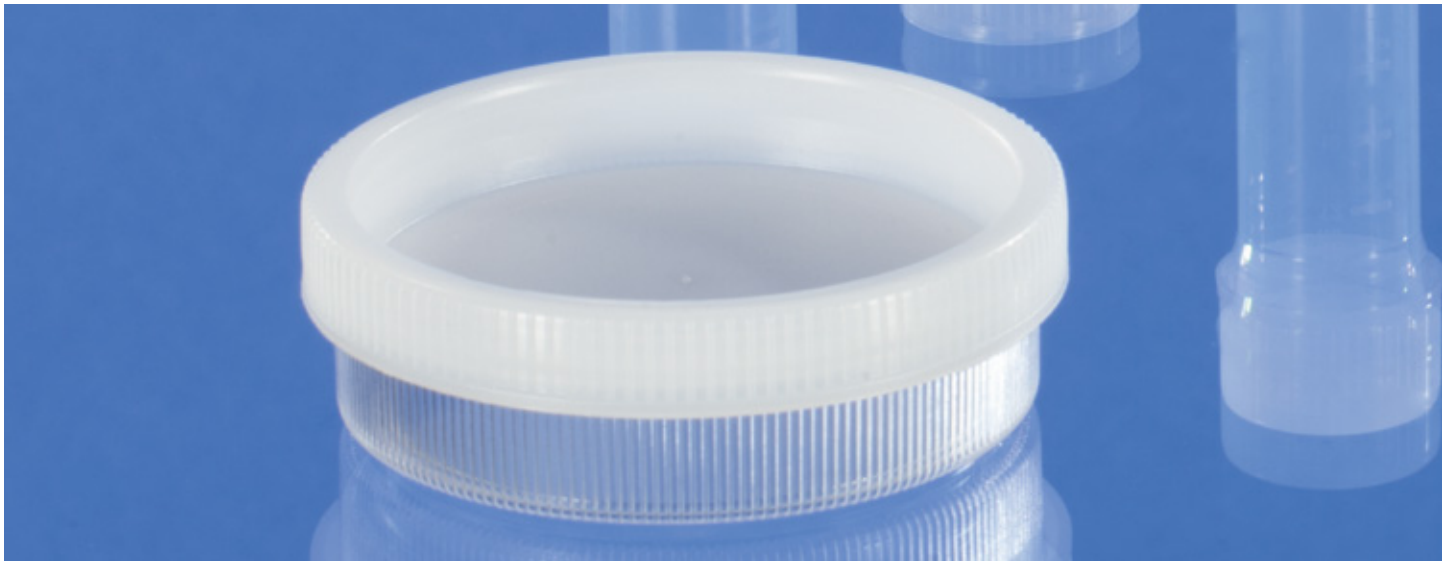




UNIVERSAL CONTAINERS



Universal Containers, Screw Closure



- optimally clear
- reliable screw cap fitted
- for matching mailing containers see page 36 ff

REF	Material Container	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-061-2000	PS	70/23	24	fitted	200/200

Universal Containers with Plug

- crystal clear
- flat bottom
- fitted push-in-plug



REF	Material Tube	Colour Plug	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
07-051-2000	PS	natural	22/62	20	fitted	1,000/1,000

Universal Containers, Screw Closure



- optimally clear
- reliable screw cap fitted
- for matching mailing containers see page 36 ff

REF	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				fitted	250/1,000
01-073-3100				fitted, irradiated	100/1,000
07-061-2000	PS	70/23	24	fitted	200/200
07-061-3000				fitted, irradiated	200/200

Boettger – 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 Boettger'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.

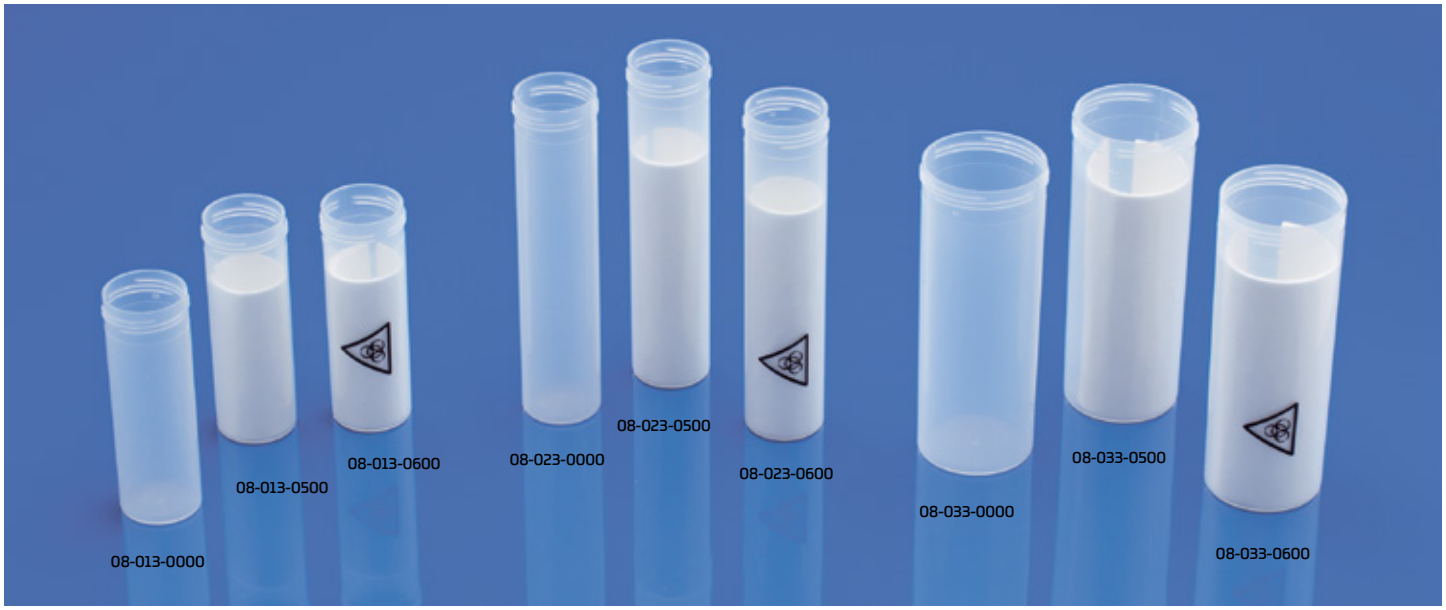




TRANSPORT CONTAINERS



Mailing / Transport Containers for Diagnostic Samples



- corresponding to P650, ADR (with insert)
- 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
- 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 REF 08-145-0000 suitable for Port-a-Cul
- please note: transport tubes and screw caps have to be ordered separate

REF	Material	Colour	Size (mm)	Volume (ml)	Description	Packaging (bag/ctn)
08-013-0000	PP	natural	30/85	40	universal container	500/500
08-013-0500					with insert	
08-013-0600					with insert „Biohazard“	
08-023-0000	PP	natural	30/126	60	universal container	300/300
08-023-0500					with insert	
08-023-0600					with insert „Biohazard“	
08-033-0000	PP	natural	44/114	120	universal container	250/250
08-033-0500					with insert	
08-033-0600					with insert „Biohazard“	

Screw Caps



REF	Material	Colour	Size (mm)	Fitting Container	Description	Packaging (bag/ctn)
08-115-0000	HD-PE	natural	30	08-013-0000 08-013-0500 08-013-0600	without chimney	500/500
08-115-0001 [1]		blue				
08-115-0002 [1]		red				
08-115-0003 [1]		yellow				
08-115-0007 [1]		brown				
08-125-0000	HD-PE	natural	30	08-023-0000 08-023-0500 08-023-0600	with chimney for tube ø 16	300/300
08-125-0001 [1]		blue				
08-125-0002 [1]		red				
08-125-0003 [1]		yellow				
08-125-0007 [1]		brown				
08-145-0000	HD-PE	natural	30	08-023-0000 08-023-0500 08-023-0600	for Port-a-Cul	300/300
08-135-0000	HD-PE	natural	44	08-033-0000 08-033-0500 08-033-0600	with chimney for tube ø 25	250/250
08-135-0001 [1]		blue				
08-135-0002 [1]		red				
08-135-0003 [1]		yellow				
08-135-0007 [1]		brown				

[1] on request

Examples of appropriate Sample Containers

REF	Transport Container	Sample Container	REF Sample Container
08-013-0500	transport container 30/85 with insert	stool container 20/76 universal container 20/76	07-023-2007 01-073-2000
08-023-0500	transport container 30/126 with insert	test tube, screw cap 16/57 test tube, screw cap 16/100 stool container 16/100	01-093-1000 01-063-2000 07-033-2007
08-033-0500	transport container 44/114 with insert	test tube, screw cap 25/107 stool container 25/107	01-083-2000 07-043-2007

Transport 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 covers



REF	Material	Colour	Packaging (bag/ctn)
08-205-0000	HD-PE	natural	500/500

Transport Container for Universal Container 24 ml

- for safe transport of sputum cup/universal container REF 07-061-2000



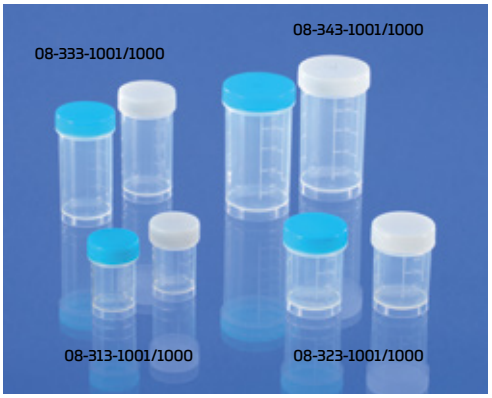
REF	Material	Colour	Packaging (bag/ctn)
08-212-1003	SB/LD-PE	natural/yellow	100/100

UNIVERSAL CONTAINERS, FOR FORMALIN



Universal Containers, for Formalin

- 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	Material (Cup/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 [1]					natural	
08-323-1001	PP/HD-PE	35	39/55	cap enclosed	blue	500/500
08-323-1000 [1]					natural	
08-333-1001	PP/HD-PE	50	39/74	cap enclosed	blue	500/500
08-333-1000 [1]					natural	
08-343-1001	PP/HD-PE	100	48/80	cap enclosed	blue	250/250
08-343-1000 [1]					natural	

[1] on request

Tubes, for Formalin



REF	Material	Size (mm)	Volume (ml)	Colour Cap	Description	Packaging (bag/ctn)
01-093-1001	PP/HD-PE	16/57	8	blue	cap enclosed	1,000/2,000
01-093-1000				natural		
01-063-1001	PP/HD-PE	16/100	13	blue	cap enclosed	1,000/1,000
01-063-1000				natural		
01-073-1001	PP/HD-PE	20/76	15	blue	cap enclosed	1,000/1,000
01-073-1000				natural		

APPLICATORS / SPATULAS

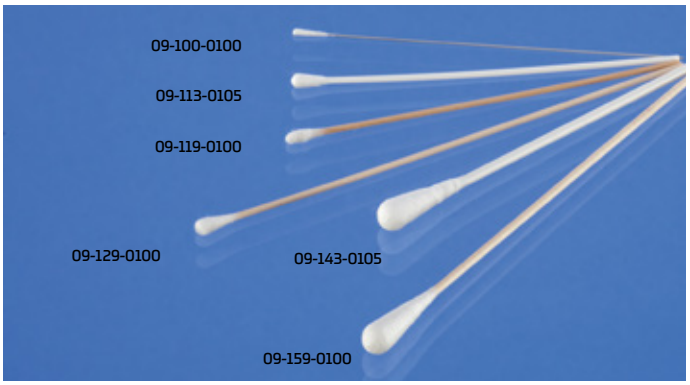


Applicators

- on different applicator sticks
- in different lengths and head-sizes
- as a medical-product or hygienic/cleaning-article
- sterile or standard hygienic

Medical Applicators

- corresponding to EN ISO 13485 and MDR Class 1
- 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



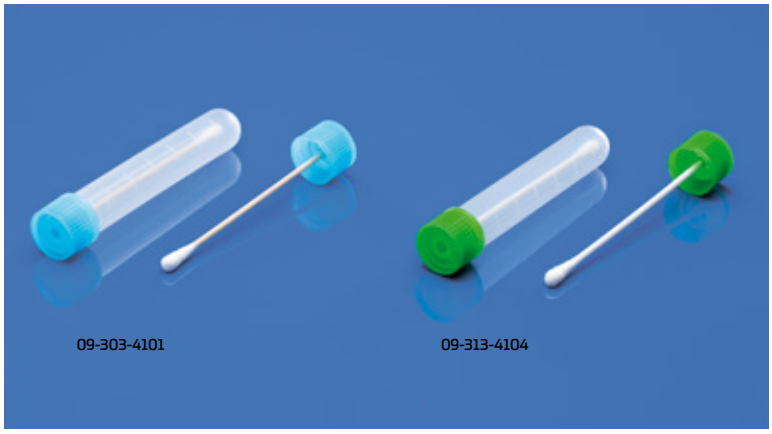
REF	Material Applicator	Size (mm)	Size Head (mm)	PZN	Packaging (bag/ctn)
09-100-0100	alu	150	mini (ø 2)	02146015	100/10,000
09-113-0105	PP white	2.5/150	small (ø 4-5.5)	01407407	100/4,000
09-119-0100	wood	2.2/150	small (ø 4-5.5)	07469036	100/10,000
09-129-0100	wood	2.5/200	small (ø 4-5.5)	01407442	100/8,000
09-143-0105	PP white	4/150	big (ø 10-12)	07469042	50/1,000
09-159-0100	wood	3/200	big (ø 10-12)	11125590	50/750

Sterile Medical Applicators

- corresponding to EN ISO 13485 and MDR Class 1s
- packed in the peel-pack individually or in pairs
- ETO-sterile

REF	Material Applicator	Size (mm)	Size Head (mm)	Peel-Pack	PZN	Packaging (bag/ctn)
09-100-9100	alu	150	mini (ø 2)	individually	02146009	100/2,500
09-113-9105	PP white	2.5/150	small (ø 4-5.5)	individually	01435295	100/2,500
09-119-9100	wood	2.2/150	small (ø 4-5.5)	individually	01407459	100/2,500
09-119-8100				pairs	01407465	100/3,000
09-143-9105	PP white	4/150	big (ø 10-12)	individually	01407519	100/500
09-143-8105				pairs	01407525	100/500

Universal Tube, Screw Cap and Applicator

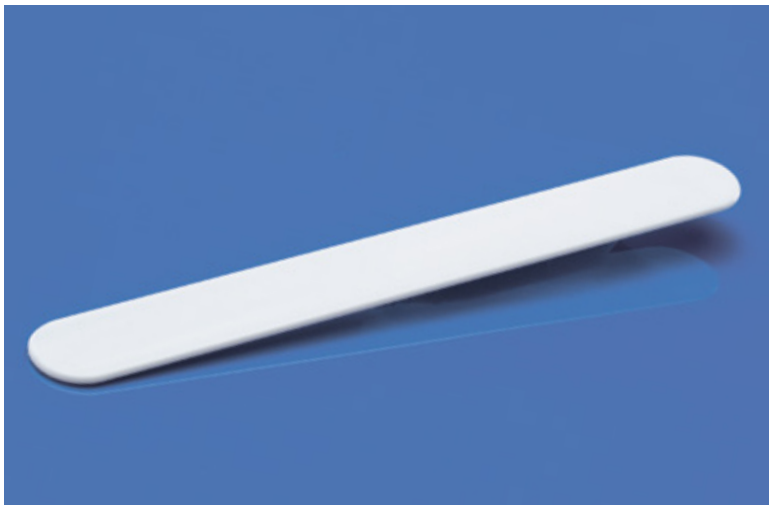


- for laboratory applications
- wooden or plastic applicator with small head, fitted and irradiated

REF	Material Applicator	Size (mm)	Volume (ml)	Colour Cap	Description	Packaging (bag/ctn)
09-303-4101	wood	16/100	13	blue	fitted, irradiated	100/1,000
09-313-4104 [1)]	PP white	16/100	13	green	fitted, irradiated	100/1,000

[1)] on request

Universal Spatulas

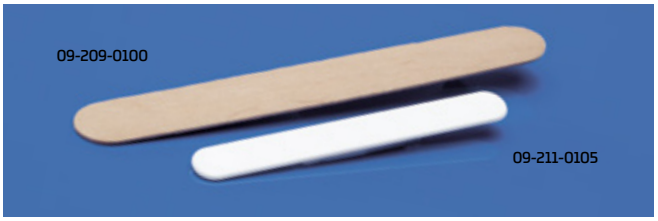


- polystyrene white

REF	Material	Size (mm)	Description	PZN	Packaging (bag/ctn)
09-201-0105	PS white	150	universal spatulas	18186749	100/1,500

Universal Spatulas

- wood or polystyrene white



REF	Material	Size (mm)	Description	PZN	Packaging (bag/ctn)
09-209-0100	wood	150	universal spatulas	09088918	100/5,000
09-211-0105	PS white	100	universal spatulas	07469013	100/4,000

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	Material	Size (mm)	Description	Packaging (bag/ctn)
09-241-0100	PS	3/120	stirring spatulas	500/10,000
09-251-0100	PS	3/120	stirring spatulas, mixing device	500/6,000

Boettger – 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.

There is no way is too far for you as our customer!



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

	LD-PE		HD-PE		PP		PS	
Agent	+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

	LD-PE		HD-PE		PP		PS	
Agent	+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
Perchlorethylene	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
Trichloracetic 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

E = Excellent.
Plastic is absolutely resistant to this substance.

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

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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Paul Boettger GmbH & Co. KG
Miesleuthenweg 35 - 45
94249 Bodenmais/Germany
Phone +49 (0) 9924 / 9429-0
Fax +49 (0) 9924 / 9429-42
sales@boettger.com

www.boettger.com

