



**DURAN  
WHEATON  
KIMBLE**

Excellence in your hands

DURAN®  
LABORATORY GLASS BOTTLES  
AND ACCESSORIES

The perfect solution  
for every application



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## TABLE OF CONTENTS

DURAN® LABORATORY GLASS BOTTLES: THOROUGHLY PROVEN – UNIVERSALLY APPLICABLE	03	FOR PERFECT INTERACTION: ACCESSORIES FOR DURAN® LABORATORY GLASS BOTTLES	17
THE ORIGINAL: DURAN® LABORATORY GLASS BOTTLE	06	THE HIGHEST EXPECTATION FULFILLED: PREMIUM CAP	18
THE LIGHT PROTECTED: DURAN® LABORATORY GLASS BOTTLE IN AMBER	07	SIMULTANEOUSLY POROUS AND SEALING: MEMBRANE CAP	19
THE COATED: DURAN® PROTECT LABORATORY GLASS BOTTLE	08	SECURITY AT A GLANCE: TAMPER-EVIDENT SCREW	20
THE SPACE SAVER: DURAN® SQUARE BOTTLE	09	INCREASED RESISTANCE: PBT CAP	21
THE TOP CLASS: DURAN® GL 45 PREMIUM BOTTLE	10	DISTINGUISHABLE: COLOURED SCREW CAP	22
THE PRESSURE TIGHT: DURAN® GL 45 PRESSURE PLUS LABORATORY GLASS BOTTLE	13	THE PROFESSIONAL CONNECTION: CONNECTION SYSTEMS FOR DURAN® LABORATORY GLASS BOTTLES	24
THE COMPLETE: DURAN® GL 45 HPLC-LABORATORY GLASS BOTTLE	14		
DURAN® PROPERTIES: BENCHMARK FOR THE HIGHEST QUALITY	16		



## DURAN® LABORATORY GLASS BOTTLES: THOROUGHLY PROVEN – UNIVERSALLY APPLICABLE

DURAN® laboratory glass bottles impress because of their outstanding properties. In more than forty years of production, the bottles have been consistently developed and improved. Thanks to this experience, the DURAN GROUP offers quality that remains unmatched.

With numerous variants and the comprehensive original equipment from DURAN®, a broad range of high-quality products and systems is available, permitting almost unlimited applications.



### The advantages at a glance

Standardised GL-thread and matching cap systems –

for particularly tight sealing and simple, clean pouring out

Outstanding chemical resistance and near inert behaviour –

no interfering ion exchange

High temperature and thermal shock resistance – ideal for autoclaving and dry sterilising

Sturdy design and uniform wall thickness distribution –

for improved safety and longer service life

Transparent –

contents and volume can be quickly checked

Glass Type I (neutral glass) conforming to USP/EP –

especially suited to applications in the pharmaceutical and food industries

Very steady –

due to large base

Easy labelling –

thanks to large labelling field

Practicality –

easy to read, permanent graduations

### Retrace Code

Using the eight-character Retrace Code and the corresponding article number, the batch and quality certificate for every DURAN® laboratory glass bottle can be obtained at [www.duran-group.com](http://www.duran-group.com).





## 06 THE ORIGINAL: DURAN® LABORATORY GLASS BOTTLE

This classical bottle is an essential in every laboratory and has shown itself to be a reliable partner for countless applications thanks to the proven properties of DURAN® glass.

The outstanding DURAN® quality enables a wide spectrum of use from long-term storage through to the most demanding applications in the pharmaceutical industry.

- Proven DURAN® properties
- Large labelling field
- Scale with graduation
- Complete with PP screw cap and pouring ring (also available without cap and pouring ring)
- Retrace code
- Autoclavable
- Sizes: 10 ml to 20.000 ml

Order No.	Capacity ml	DIN-Thread GL	d mm	h mm	Pack Quantity
21 801 08 5	10	25	36	50	10
21 801 14 5	25	25	36	74	10
21 801 17 5	50	32	46	91	10
21 801 24 5	100	45	56	105	10
21 801 29 5	150	45	62	105	10
21 801 36 5	250	45	70	143	10
21 801 44 5	500	45	86	181	10
21 801 51 5	750	45	95	203	10
21 801 54 5	1,000	45	101	230	10
21 801 63 5	2,000	45	136	265	10
21 801 69 5	3,500	45	160	295	1
21 801 73 5	5,000	45	182	335	1
21 801 86 5	10,000	45	227	415	1
21 801 88 5	15,000	45	268	450	1
21 801 91 5	20,000	45	288	510	1



## THE LIGHT PROTECTED: DURAN® LABORATORY GLASS BOTTLE IN AMBER

The amber DURAN® laboratory glass bottle also protects media from light radiation with a wavelength between 300 and 500 nm. It is, therefore, particularly suitable for use with light-sensitive media and for the long-term storage of substances.

- UV protection up to 500 nm wavelength
- Consistent external application of the colour; internal surfaces have standard DURAN® glass properties

- Uniform amber colour as a result of innovative technology
- Special thermal method also results in long durability and good chemical resistance of the amber colour
- Retrace code
- Autoclavable
- Sizes: 10 ml to 20.000 ml

Order No.	Capacity (ml)	DIN-Thread (GL)	d (mm)	h (mm)	Pack Quantity
21 806 08	10	25	36	50	10
21 806 14	25	25	36	70	10
21 806 17	50	32	46	87	10
21 806 24	100	45	56	100	10
21 806 29	150	45	62	105	10
21 806 36	250	45	70	138	10
21 806 44	500	45	86	176	10
21 806 51	750	45	95	203	10
21 806 54	1,000	45	101	225	10
21 806 63	2,000	45	136	260	10
21 806 69	3,500	45	160	295	1
21 806 73	5,000	45	182	330	1
21 806 86	10,000	45	227	410	1
21 806 88	15,000	45	268	445	1
21 806 91	20,000	45	288	505	1



## 08 THE COATED: DURAN® PROTECT LABORATORY GLASS BOTTLE

When handling particularly valuable or dangerous media, use of the DURAN® Protect laboratory glass bottle is recommended. With its external plastic coating, it offers effective protection in daily laboratory work. If the outside is damaged, the coating holds the glass together, so that leakage of the medium is slowed or even stopped completely.

- Scratch, splinter and partial leak protection
- Highly transparent PU coating
- Ideal for storage and transport
- Suitable for microwaving
- Highly resistance, long service-life coating
- Retrace code
- Autoclavable
- Sizes: 10 ml to 5.000 ml

Order No.	Capacity ml	DIN-Thread GL	d mm	h mm	Pack Quantity
21 805 08	10	25	36	50	10
10 926 76	25	25	36	70	10
10 926 77	50	32	46	87	10
21 805 24	100	45	56	100	10
21 805 29	150	45	62	105	10
21 805 36	250	45	70	138	10
21 805 44	500	45	86	176	10
21 805 51	750	45	95	203	10
21 805 54	1,000	45	101	225	10
21 805 63	2,000	45	136	260	10
21 805 69	3,500	45	160	295	1
21 805 73	5,000	45	182	330	1





## THE SPACE SAVER: DURAN® SQUARE BOTTLE

The DURAN® square bottle sits, thanks to its square shape, particularly well and securely in the hand. Moreover, it saves space and is more economical – whether in autoclaves, in drying cabinets, in ovens, in storage or in washers. For example, seventy two 100 ml square bottles can be placed on a given surface rather than fifty 100 ml standard bottles and processed for the same costs. This corresponds to a space saving of 44 percent.

- Ergonomic handling
- Highly stable
- Good stackability
- Complete with PP screw cap and pouring ring
- Retrace code
- Autoclavable
- Sizes: 100 ml to 1.000 ml

Order No.	Capacity ml	DIN-Thread GL	d mm	h mm	Pack Quantity
21 820 24 5	100	32	50	109	10
21 820 36 5	250	45	64	143	10
21 820 44 5	500	45	78	181	10
21 820 54 5	1,000	45	94	222	10



## 10 THE TOP CLASS: DURAN® GL 45 PREMIUM BOTTLE

The DURAN® Premium bottle is a consistent development of the standard bottle with GL 45 thread and blue screw cap.

Alongside the proven material properties, the Premium bottle offers additional advantages that, first and foremost, contribute to safety in the laboratory while also simplifying handling. In addition, it supports a wider range of uses than standard laboratory glass bottles.

- Completed with an enhanced temperature-resistant screw cap manufactured from TpCh260 (similar to PFA) including a matching pouring ring (can be used from  $-196\text{ °C}$  to  $+200\text{ °C}$ ); the raw material conforms to USP Class VI
- PTFE coated silicone seal
- Dye-free cap and pouring ring to prevent marking or contamination of ovens, drying chambers and sterilisation cabinets
- Scale accuracy to  $\pm 5\%$
- Additional scale for reading off the filling level as well as the quantity removed
- The entire system comprising bottle, cap and pouring ring conforms to USP/FDA
- Ideal for sterilisation processes such as hot-air or dry sterilisation and depyrogenation
- Retrace code
- Batch certificate available
- Autoclavable
- Sizes: 100 ml to 1.000 ml

Order No.	Capacity ml	DIN-Thread GL	d mm	h mm	Pack Quantity
11 270 75	100	45	56	100	10
11 270 76	250	45	70	138	10
11 270 77	500	45	86	176	10
11 270 78	1,000	45	101	225	10



For optimum safety

Guaranteed thermal shock resistance up to  $\Delta 160$  K, proven according to the stringent specifications of TÜV Rheinland and confirmed by the GS-indication (TÜV ID:0000020715)



## THE PRESSURE TIGHT: DURAN® GL 45 PRESSURE PLUS LABORATORY GLASS BOTTLE:

Where applications involving pressures or vacuums are concerned, the DURAN® pressure plus is first choice. Thanks to a modified geometry, the bottle has a guaranteed pressure-resistance and consequently offers optimum safety both for user and content.

- Special geometry based on ISO 4796
- Vacuum or pressure resistance guaranteed from  $-1$  bar to  $+1.5$  bar
- Safety tested by the TÜV, in accordance with EN 1595 (TÜV ID:0000020716)
- Blue printing to visually distinguish it from the standard bottle
- Retrace code
- Autoclavable
- Sizes: 250 ml to 1.000 ml

Order No.	Capacity ml	DIN-Thread GL	d mm	h mm	Pack Quantity
Clear					
10 922 34	250	45	70	138	10
10 922 35	500	45	86	176	10
21 810 54	1.000	45	101	225	10
Amber					
10 943 67	250	45	70	138	10
10 943 68	500	45	86	176	10
21 816 54	1.000	45	101	225	10



## 14 THE COMPLETE: DURAN® GL 45 HPLC LABORATORY GLASS BOTTLE

The DURAN® HPLC laboratory glass bottle represents a finished system: it comprises the pressure-resistant DURAN® pressure plus laboratory glass bottle and a screw cap with four ports. This permits simultaneous feeding of three stations from one container. At the same time, a membrane filter can be optionally applied to the fourth outlet to permit sterile pressure equalization.

It can be used with tube diameters of 1.6 mm (1/16 inch) and 3.2 mm (1/8 inch). Unused ports can be closed with a silicone seal.

Order No.	Capacity ml	DIN-Thread GL	d mm	h mm	Pack Quantity
11 298 21	500	45	86	176*	2
11 298 20	1,000	45	101	225*	2
<i>*bottle only</i>					
Spare parts	Description				Pieces
11 298 12	Screw cap HPLC GL 45				1
11 298 13	Spare set for HPLC screw cap				1
11 378 01	Pressure equalization set for 4-port cap				1
11 298 19	Spare membrane filter for pressure equalization set 0.2 µm				2



### Variable system with lots of advantages

- **All-in-one** – laboratory bottle including 4-port screw cap ready for immediate use (spare parts available separately)
- **Based on the DURAN® pressure plus** – for information see p.13; bottle can also be ordered separately
- **Safe, inexpensive working** – in closed systems, toxic gases are largely retained in the bottle and the evaporation of expensive substances is reduced
- **Universal system** – screw cap with standardised GL 45 thread
- **PP cap** – can be autoclaved together with the bottle and thus reused many times over
- **Optional silicone seals (available individually)** – can also be used as a septum, therefore retrospective addition of additives is possible

### Problem solver for numerous applications

- Feeding of HPLC automated machines with solvents (eluent)
- Disposal of waste media
- Titration systems
- Any closed system in which a sterile transfer of media is required and as a result of which pressure arises (only in conjunction with DURAN® pressure plus bottle)
- Biotechnology processes, e.g. to pump additives (culture media etc.) from reservoir vessels into reaction vessels
- Automated, closed processes to transfer pure, sterile media
- Transfer of harmful to health, toxic substances in closed systems (to reduce out-gassing)

*Further information about the connection systems for DURAN® laboratory glass bottles with two and three ports can be found on page 24.*

## DURAN® PROPERTIES: BENCHMARK FOR THE HIGHEST QUALITY

Proven through decades of practical use, DURAN® products set benchmarks where resistance and safety are concerned. Particularly when compared with plastic, the individual material properties of DURAN® offer clear advantages. Choose original DURAN® laboratory glass bottles and accessories because top quality tolerates no compromises.

### Chemical resistance

- Hydrolytic resistance corresponding to class I as per DIN ISO 719, neutral glass/glass type I as per USP/EP
- Acid resistance corresponding to class I as per DIN 12116
- Base resistance corresponding to class 2 as per ISO 695

### Temperature resistance

- Serviceable up to a maximum of 500 °C (not caps etc)
- High thermal shock resistance ( $\Delta$  100 K)
- Ideal for filling with hot media and carrying out sterilisation processes
- Autoclavable
- Suitable for use in microwaves

### Professional quality assurance

- Uniform wall thickness distribution
- Bubble and streak-free glass
- Precise dimensions and narrow tolerances
- Retrace code

### Retrace Code

Using the eight digit Retrace Code and the corresponding article number, the batch and quality certificate for every DURAN® laboratory glass bottle can be obtained at [www.duran-group.com](http://www.duran-group.com).



## FOR PERFECT INTERACTION: ACCESSORIES FOR DURAN® LABORATORY GLASS BOTTLES

The combination of DURAN® laboratory glass bottles with original equipment guarantees, right down to the finest detail, matching systems that consequently deliver optimum results. Whether temperature resistance,

chemical resistance, USP conformity or leak-tightness – with its comprehensive range of caps and further accessories, DURAN® has the right solution for every requirement. The table at the end of the brochure offers an overview.



## 18 THE HIGHEST EXPECTATION FULFILLED: ACCESSORIES FOR DURAN® LABORATORY GLASS BOTTLES

Thanks to its highly resistant material, the Premium cap is optimally suited to use for chemically and thermally demanding processes. Its high temperature resistance makes it the perfect partner to the DURAN® Premium bottle. The DURAN® laboratory glass bottle and Premium cap form a system that is precisely tailored to sterilisation processes such as hot-air or dry sterilisation as well as depyrogenation.

Neither cap or pouring ring contain any dye to prevent marking or contamination of ovens, drying chambers and sterilisation cabinets by dye which could otherwise be dissolved out. The materials used correspond to the specifications of the FDA/USP/EP. Consequently, the Premium cap is particularly predestined to use in the pharmaceutical, chemical and food industries.

- Exceptionally temperature resistant from  $-196\text{ }^{\circ}\text{C}$  to  $+200\text{ }^{\circ}\text{C}$
- Made from TpCh260 (similar to PFA); the raw material conforms to USP class VI
- No dye additives (leaching of dyes is excluded)
- High chemical resistance
- Extremely leak-tight through use of PTFE-coated silicone seal
- Ideal for dry-sterilisation/high temperature applications
- Particularly suited to storage and transport
- DMF available upon request
- Retrace code
- Autoclavable

Item No.	Thread	Pack Quantity
Cap		
11 296 00	GL 25	5
10 886 79	GL 45	5
Pouring ring		
10 886 78	GL 45	5
Replacement sealing disc		
29 248 14	GL 25	10
29 248 29	GL 45	10



## SIMULTANEOUSLY POROUS AND SEALING: MEMBRANE CAP FOR DURAN® LABORATORY GLASS BOTTLES

The membrane screw cap enables pressure equalization through a PTFE membrane, while the bottle remains tightly closed. This makes the cap ideal for autoclaving processes, because the contamination risk is dramatically lowered. Liquids, solids, and dirt particles cannot enter: the bottle contents remain sterile, even during storage. The membrane cap is also suitable for storing gas generating media.

- For all GL 45, GL 32 and GL 25 threads
- From proven PP material
- With welded-in PTFE membrane (0.2 µm)
- Membrane is only gas-permeable, not liquid-permeable
- 2-way membrane with pressure equalization for differential pressures greater than 0.1 bar
- Temperature resistant to +140 °C
- Ideal for autoclaving processes or for storage of gas generating media

Item No.	Thread	Pack Quantity
11 832 50	GL 25	5
11 832 51	GL 32	5
10 886 55	GL 45	5

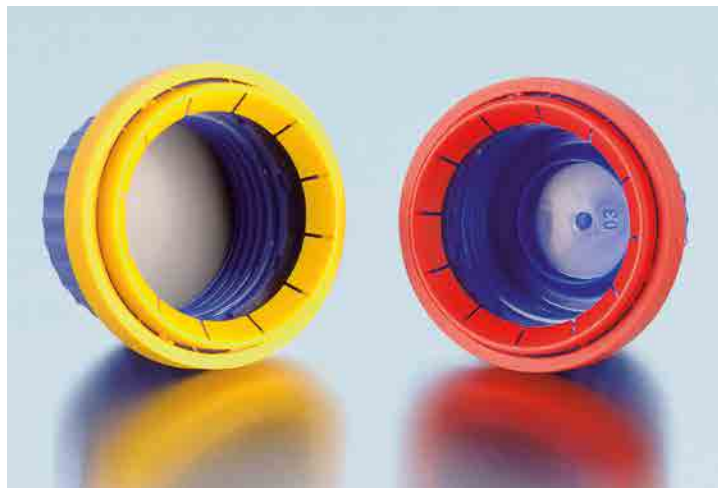


## 20 SECURITY AT A GLANCE: TAMPER-EVIDENT CAP FOR DURAN® LABORATORY GLASS BOTTLES

The tamper-evident cap ensures the bottle content is securely stored, particularly when transporting valuable or critical media. When first closed, the plastic ring sits firmly over the bottle throat. If the cap is opened, the perforation tears and the plastic ring is retained around the throat. It is immediately and visibly apparent if the contents have retained their integrity.

- For all GL 45 threads
- Proven PP material
- Temperature resistant to +140 °C
- Cap can also be used after the first untwisting or breaking of the perforations as a "standard" screw cap
- Available with lip (blue/red) or PTFE-coated silicone seals (blue/yellow)
- Autoclavable

Item No.	Thread	Options	Pack Quantity
10 175 26	GL 45	with lip seal	10
11 558 86	GL 45	with PTFE sealing disk	10



## INCREASED RESISTANCE: PBT CAP FOR DURAN® LABORATORY GLASS BOTTLES

Complementing the screw caps produced from PP and TpCh260 there is a further version manufactured from PBT. The cap is available with a PTFE coated silicone seal (increases the leak-tightness) or as a screw connection cap with aperture, e.g. for use with septa.

- For all GL 45, GL 32, GL 25, GL 18 and GL 14 threads
- Temperature resistant to +180 °C
- PTFE coated silicone seal
- More chemically resistant than PP
- Matching colour pouring ring
- Autoclavable

Item No.	Thread	Colour	Pack Quantity
Caps			
29 240 28	GL 45	Red	10
29 240 19	GL 32	Red	10
29 240 13	GL 25	Red	10
29 240 11	GL 18	Red	10
29 240 08	GL 14	Red	10
Pouring ring			
29 244 28	GL 45	Red	10
29 244 19	GL 32	Red	10
Cap with aperture			
29 227 10	GL 45	Red	10
29 227 08	GL 32	Red	10
29 227 09	GL 25	Red	10
29 227 06	GL 18	Red	10
29 227 05	GL 14	Red	10



## 22 DISTINGUISHABLE: COLOUR SCREW CAPS FOR DURAN® LABORATORY GLASS BOTTLES

The standard PP screw cap is available in blue, green, yellow and grey with matching pouring rings. In addition to clear labelling of laboratory glass bottles, the colour caps contribute to unambiguous marking. Different media can be distinguished at a glance and hence easily kept separate, even when the bottles are open. The clear marking helps prevent interchanging of caps and with it the carry over of substances.

- For all GL 45, GL 32 and GL 25 threads
- From proven PP material
- Temperature resistant to +140 °C
- In colours blue, green, yellow and grey
- Matching coloured pouring rings
- Autoclavable

Item No.	Threads	Colour	Pack Quantity
Screw caps			
29 338 28 6	GL 45	Green	10
29 338 28 0	GL 45	Yellow	10
29 239 28	GL 45	Blue	10
29 338 28 8	GL 45	Grey	10
29 239 19	GL 32	Blue	10
29 239 13	GL 25	Blue	10
Pouring rings			
10 899 11	GL 45	Green	10
10 899 17	GL 45	Yellow	10
29 242 28	GL 45	Blue	10
10 899 14	GL 45	Grey	10
29 242 19	GL 32	Blue	10





## 24 THE PROFESSIONAL CONNECTION: CONNECTION-SYSTEM FOR DURAN® LABORATORY GLASS BOTTLES

The connection systems for DURAN® laboratory glass bottles enable safe transfer of liquid media within a closed and sterile system. Therefore they are ideally suited to use in chemistry and biotechnology laboratories.

### Successfully used in numerous applications

- Feeding of HPLC automated machines with solvents (eluent)
- Disposal of waste media
- Titration systems
- All closed systems in which a sterile transfer of media is required and as a result of which pressure results (only in conjunction with DURAN® pressure plus bottle)
- Biotechnology processes, e.g. to pump additives such as culture media etc. from reservoir vessels into reaction vessels
- Automated, closed processes to transfer pure, sterile media
- Transfer of harmful-to-health, toxic substances in closed systems (to reduce out gassing)
- Autoclavable







### How it works: flexible working with system

The basis of the connection system for DURAN® laboratory bottles are screw caps with GL 45 threads and two or three outlets or ports. Liquid media can be added to or removed from bottles using the tube connections. Using a universal GL 14 tube adapter and different inserts, four different tube diameters can be used. An additional membrane filter with 0.2 µm pore size permits sterile pressure equalization via one of the outlets.

This flexible, modular system provides the option of combining various components according to need and application.

The components are compatible with each other and are used in conjunction with original DURAN® GL 45 laboratory glass bottles. To increase safety in the laboratory, use of the pressure-resistant DURAN® pressure plus laboratory glass bottle is to be recommended. Due to its modified geometry, a pressure-resistance of –1 bar to +1,5 bar is assured, as confirmed by TÜV.

### One system – many advantages

- Wide range of uses, because the screw cap is based on the standard GL 45 thread
- Four different tube diameters can be used (1.6 mm [1/16 Inch]; 3.0 mm; 3.2 mm [1/8 Inch]; 6.0 mm [1/4 Inch])
- The components for the 2- and 3-port system are identical and interchangeable
- Unused ports can be sealed with a blanking cap
- Due to their composition (PP and PTFE), the caps and all individual components are autoclavable and are thus easily reused; dismantling into individual parts is not necessary
- Through working in a closed system, toxic gases are largely retained in the bottle and the evaporation of expensive substances is reduced
- Flexible modular system for individual assembly according to application
- Temperature resistant to +140 °C
- Autoclavable



*DURAN® products can be obtained from your specialist laboratory dealer.*

*Order addresses and other details about the items (e.g. technical information) can be found under [www.duran-group.com](http://www.duran-group.com) or in the DURAN® laboratory glassware catalogue.*

*Special safety caps and wide-neck bottles are contained in the brochures “DG Safety Caps” and “DURAN® GLS80 Glass bottles with wide neck”.*

Product	Item No.	Material	Colour	Temperature resistance	Chemical resistance	Tightness	Con-formity	DIN-Threads	Special properties	Additional available sizes
Caps										
Premium Cap	10 886 79	TpCh260/ PTFE/Silicone	co- lour- less	-196 °C/+260 °C	+++	+++	FDA/ USP	GL 45	Sealing disk/ Batch Code on item	GL 25
Membrane Cap	10 886 55	PP/PTFE	Blue	-40 °C/+140 °C	+	+	FDA	GL 45	Pressure equali- zat. from 0.1 bar	GL 32, 25
PP Cap	29 239 28	PP	Blue	-40 °C/+140 °C	+	+	FDA	GL 45		GL 32, 25
	29 338 28 6	PP	Green	-40 °C/+140 °C	+	+	FDA	GL 45		–
	29 338 28 0	PP	Yellow	-40 °C/+140 °C	+	+	FDA	GL 45		–
	29 338 28 8	PP	Grey	-40 °C/+140 °C	+	+	FDA	GL 45		–
Tamper-evident Cap	10 175 26	PP	Blue/ Red	-40 °C/+140 °C	+	+	FDA	GL 45	Tamper- evident cap	–
	11 558 86	PP	Blue/ Yellow	-40 °C/+140 °C	++	++	FDA	GL 45	Tamper-evi- dent cap with sealing disk	–
PBT Cap	29 240 28	PBT/PTFE/ Silicone	Red	-45 °C/+180 °C	++	++	FDA	GL 45	With sealing disk	GL 32, 25, GL 18, 14
PBT Aperture Cap	29 227 10	PBT	Red	-45 °C/+180 °C	++	++	FDA	GL 45	Opening for e.g. septa	GL 32, 25, GL 18, 14
Pouring rings for										
Premium Cap	10 886 78	TpCh260	co- lour- less	-196 °C/+260 °C	+++	+++	FDA/ USP	GL 45		–
PBT Cap	29 244 28	ETFE	Red	-45 °C/+180 °C	++	++		GL 45		GL 32
PP Cap	29 242 28	PP	Blue	-40 °C/+140 °C	+	+	FDA	GL 45		GL 32
	10 899 11	PP	Green	-40 °C/+140 °C	+	+	FDA	GL 45		–
	10 899 14	PP	Yellow	-40 °C/+140 °C	+	+	FDA	GL 45		–
	10 899 17	PP	Grey	-40 °C/+140 °C	+	+	FDA	GL 45		–

Product DURAN GL 45 Connection System	Item No.	Material	Colour	Temperature resistance	Chemical resistance	Tightness	Con- formity	DIN- Threads	Special properties
<b>2/3-Ports</b>									
Screw cap GL 45, 2-ports GL 14	11 297 50	PP	Blue/Grey	-40 °C/+140 °C	+	+	FDA	GL 45/14	2-Ports (GL 14)
Screw cap GL 45, 3-ports GL 14	11 297 51	PP	Blue/Grey	-40 °C/+140 °C	+	+	FDA	GL 45/14	3-Ports (GL 14)
Screw cap GL 14 for tube connection	11 298 14	PP	Blue	-40 °C/+140 °C	+	+	-	GL 14	
Insert for screw cap GL 14, 1.6 mm [1/16 inch] iØ	11 298 15	PTFE/ Silicone	White	-50 °C/+230 °C	+++	++	FDA	-	
Insert for screw cap GL 14, 3.0 mm [~1/8 inch] iØ	11 298 16	PTFE/ Silicone	White	-50 °C/+230 °C	+++	++	FDA	-	
Insert for screw cap GL 14, 3.2 mm [1/8 inch] iØ	11 298 17	PTFE/ Silicone	White	-50 °C/+230 °C	+++	++	FDA	-	
Insert for screw cap GL 14, 6.0 mm [~1/4 inch] iØ	11 298 18	PTFE/ Silicone	White	-50 °C/+230 °C	+++	++	FDA	-	
Screw cap, GL 14 red	11 562 92	PBT/ PTFE/ Silicone	Red	-45 °C/+180 °C	++	++	FDA	GL 14	
Pressure equalization set for 2- and 3-port screw cap (incl. 0.2 m membrane filter)	11 377 99	PBT/PP/ PTFE	White	-40 °C/+140 °C	+	+		GL 14	
Spare membrane filter for pres- sure equalization 0.2 µm	11 298 19	PP/PTFE	White	-40 °C/+140 °C	+	+		-	
<b>4-Ports</b>									
Screw cap HPLC GL 45	11 298 12	PP	Blue/Grey	-40 °C/+140 °C	+	+		GL 45	4-Ports (complete set)
Spare set for HPLC cap	11 298 13	PP	Blue/Grey	-40 °C/+140 °C	+	+			4-Ports (complete set)
Pressure equalization set for 4 ports	11 378 01	PP	Blue/Grey	-40 °C/+140 °C	+	+			
Spare membrane filter for pressure equalization 0.2 µm	11 298 19	PP	Blue/Grey	-40 °C/+140 °C	+	+			

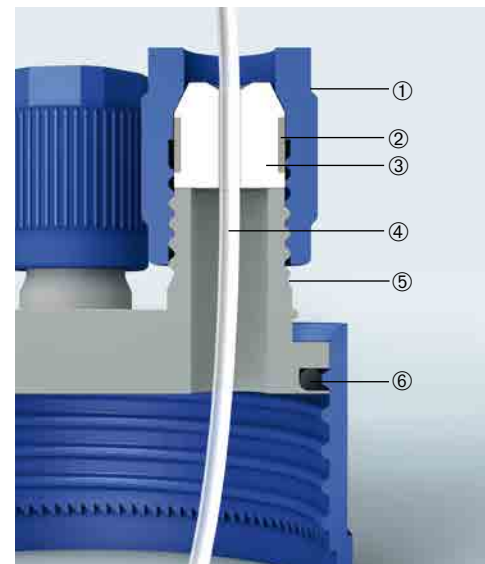
## ORDERING MADE EASY:

You would like to equip two bottles with a three port connection system.

You would like to work with two different tube diameters (1.6 mm and 3 mm) and pressure equalization.

Consequently, you need the following individual components:

- Ⓐ Screw cap GL 45 3 port  
(Art. No. 1129751) 1 pack [2 per pack]
- Ⓑ Insert for screw cap GL14  
1.6 mm iØ, (Art. No. 1129815)  
2 packs [1 per pack]
- Ⓒ Screw cap GL 14  
(Art. No. 1129814) 2 packs [2 per pack]
- Ⓓ Insert for screw cap GL14 3.0 mm  
iØ, (Art. No. 1129816) 2 packs [1 per pack]
- Ⓔ Pressure equalization set (complete)  
(Art. No. 1137799) 2 packs [1 per pack]



Schematic diagram of GL 45 connection system

- ① Screw cap GL 14 (PP)
- ② Silicone sealing ring on insert
- ③ PTFE insert / tubing connector
- ④ Tubing (not supplied)
- ⑤ Port (PP)
- ⑥ O-ring seal

*It's even easier with the DURAN® HPLC laboratory glass bottle, the preassembled complete system*

Order No.	Description	Thread	d mm	h mm	Pack. Qty
11 297 50	Screw cap GL 45, 2-port GL 14	GL 45	54	45	2
11 297 51	Screw cap GL 45, 3-port GL 14	GL 45	54	45	2
11 298 14	Screw cap GL 14 for tube connection	GL 14	20	28	2
11 298 15	Insert for screw cap GL 14, 1.6 mm [1/16 inch] iØ		13	13	1
11 298 16	Insert for screw cap GL 14, 3.0 mm [~1/8 inch] iØ		13	13	1
11 298 17	Insert for screw cap GL 14, 3.2 mm [1/8 inch] iØ		13	13	1
11 298 18	Insert for screw cap GL 14, 6.0 mm [~1/4 inch] iØ		13	13	1
11 562 92	Screw cap GL 14, red	GL 14	20	17	2
11 377 99	Pressure equalization set for 2- and 3-port screw cap (incl. 0.2 µm membrane filter)	GL 14	20	63	1
11 298 19	Spare membrane filter for pressure equalization 0.2 µm				2



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