



DURAN[®] GL 45 LABORATORY GLASS BOTTLES AND ACCESSORIES

The perfect solution for every application

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DURAN® LABORATORY GLASS BOTTLES: THOROUGHLY PROVEN – UNIVERSALLY APPLICABLE

DURAN[®] laboratory glass bottles impress because of their outstanding properties. In more than thirty 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 $- \ensuremath{$

for improved safety and longer service life

Transparent – contents and volume can be quickly checked

Glass Type 1 (neutral glass) conforming to USP/EP –

especially suited to applications in the pharmaceutical and food industries

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. Very steady -

due to large base

Easy labelling – thanks to large labelling field

Practicality -

easy to read, permanent graduations





06 THE ORIGINAL: DURAN[®] GL 45 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: 25 ml to 20,000 ml

| | Capacity | DIN-Thread | d | h | Pack |
|------------|----------|------------|-----|-----|----------|
| Order No. | ml | GL | mm | mm | Quantity |
| 21 801 145 | 25 | 25 | 36 | 74 | 10 |
| 21 801 175 | 50 | 32 | 46 | 91 | 10 |
| 21 801 245 | 100 | 45 | 56 | 105 | 10 |
| 21 801 365 | 250 | 45 | 70 | 143 | 10 |
| 21 801 445 | 500 | 45 | 86 | 181 | 10 |
| 21 801 545 | 1,000 | 45 | 101 | 230 | 10 |
| 21 801 635 | 2,000 | 45 | 136 | 265 | 10 |
| 21 801 735 | 5,000 | 45 | 182 | 335 | 1 |
| 21 801 865 | 10,000 | 45 | 227 | 415 | 1 |
| 21 801 885 | 15,000 | 45 | 268 | 450 | I |
| 21 801 915 | 20,000 | 45 | 288 | 510 | I |



THE LIGHT PROTECTED: DURAN[®] GL 45 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 lightsensitive 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: 25 ml to 20,000 ml

| | Capacity | DIN-Thread | d | h | Pack |
|-----------|----------|------------|-----|-----|----------|
| Order No. | ml | GL | mm | mm | Quantity |
| 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 36 | 250 | 45 | 70 | 138 | 10 |
| 21 806 44 | 500 | 45 | 86 | 176 | 10 |
| 21 806 54 | 1,000 | 45 | 101 | 225 | 10 |
| 21 806 63 | 2,000 | 45 | 136 | 260 | 10 |
| 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 | I |
| 21 806 91 | 20,000 | 45 | 288 | 505 | I |



THE COATED: DURAN[®] GL 45 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: 25 ml to 5,000 ml

| | Capacity | DIN-Thread | d | h | Pack |
|-----------|----------|------------|-----|-----|----------|
| Order No. | ml | GL | mm | mm | Quantity |
| 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 36 | 250 | 45 | 70 | 138 | 10 |
| 21 805 44 | 500 | 45 | 86 | 176 | 10 |
| 21 805 54 | 1,000 | 45 | 101 | 225 | 10 |
| 21 805 63 | 2,000 | 45 | 136 | 260 | 10 |
| 21 805 73 | 5,000 | 45 | 182 | 330 | L |



THE SPACE SAVER: DURAN[®] GL 45 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





| | Capacity | DIN-Thread | d | h | Pack |
|------------|----------|------------|----|-----|----------|
| Order No. | ml | GL | mm | mm | Quantity |
| 21 820 245 | 100 | 32 | 50 | 109 | 10 |
| 21 820 365 | 250 | 45 | 64 | 143 | 10 |
| 21 820 445 | 500 | 45 | 78 | 181 | 10 |
| 21 820 545 | 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 °C to +260 °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. DMF is available upon request (DMF Nr. 19757)
- 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

| | Capacity | DIN-Thread | d | h | Pack |
|-----------|----------|------------|-----|-----|----------|
| Order No. | ml | GL | mm | mm | 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 Δ 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

| | Capacity | DIN-Thread | d | h | Pack |
|-----------|----------|------------|-----|-----|----------|
| Order No. | ml | GL | mm | mm | Quantity |
| Clearly | | | | | |
| 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.

| | Capacity | DIN-Thread | d | h | Pack | |
|--------------|--|---------------------|-------------------|----------------|----------|---|
| Order No. | ml | GL | mm | mm | Quantity | |
| 11 298 21 | 500 | 45 | 86 | 176* | | 2 |
| 11 298 20 | I ,000 | 45 | 101 | 225* | | 2 |
| *bottle only | | | | | | |
| Spare parts | Description | | | | Pieces | |
| 298 2 | | | Ι | | | |
| 298 3 | | | Ι | | | |
| 378 0 | Pressure equalization set for 4-port cap | | | | | I |
| 11 298 19 | Spare memb | orane filter for pr | ressure equalizat | ion 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. I 3; 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 (eluents)
- 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 1 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 (Δ 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.**

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.



8 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 °C to +260 °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 (DMF no. 19757)
- Retrace code
- Autoclavable

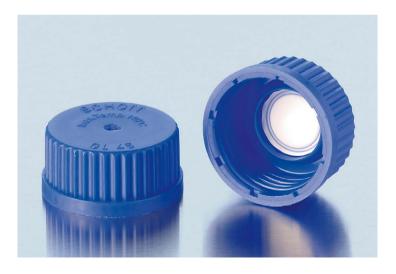


| Item No. | Thread | Pack Quantity |
|--------------|--------|---------------|
| Сар | | |
| 10 886 79 | GL 45 | 5 |
| Pouring ring | | |
| 10 886 78 | GL 45 | 5 |

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 threads
- Temperature resistant to +180 °C
- PTFE coated silicone seal
- More chemically resistant than PP
- Matching colour pouring ring
- Autoclavable

| ltem 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 1 1 | 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 aper | ature | | |
| 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 threads
- From proven PP material
- Temperature resistant to +140 °C
- In colours blue, green, yellow and grey
- Matching coloured pouring rings
- Autoclavable

| ltem No. | Threads | Colour | Pack Quantity |
|---------------|---------|--------|---------------|
| Screw caps | | | |
| 29 338 286 | GL 45 | Green | 10 |
| 29 338 280 | GL 45 | Yellow | 10 |
| 29 239 28 | GL 45 | Blue | 10 |
| 29 338 288 | 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 (eluents)
- 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 lnch]; 3.0 mm; 3.2 mm [1/8 lnch]; 6.0 mm [1/4 lnch])
- 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 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".

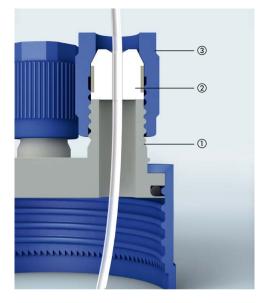
| Product | ltem No. | Material | Colour | Temperature resistance | Chemical resistance | Tightness | Con- formity | DIN- Threads | Special properties | Additional availabel sizes | |
|-----------------------|------------|---------------------------|----------------------|---------------------------|---------------------|-----------|-----------------|-----------------|--|----------------------------------|--|
| 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 | - | |
| 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 | |
| | 29 239 28 | PP | Blue | -40 °C/+140 °C | + | + | FDA | GL 45 | | GL 32, 25 | |
| PP Cap | 29 338 286 | PP | Green | -40 °C/+140 °C | + | + | FDA | GL 45 | | - | |
| TT Cap | 29 338 280 | PP | Yellow | -40 °C/+140 °C | + | + | FDA | GL 45 | | - | |
| | 29 338 288 | PP | Grey | -40 °C/+140 °C | + | + | FDA | GL 45 | | - | |
| Tama an avidant | 10 175 26 | PP | Blue/ Red | -40 °C/+140 °C | + | + | FDA | GL 45 | Tamper- evident cap | - | |
| Tamper-evident Cap | 11 558 86 | PP | Blue/ Yellow | -40 °C/+140 °C | ++ | ++ | FDA | GL 45 | Tamper-evi- dent cap with sealing disk | - | |
| РВТ Сар | 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 | | - | |
| РВТ Сар | 29 244 28 | ETFE | Red | -45 °C/+180 °C | ++ | ++ | | GL 45 | | GL 32 | |
| | 29 242 28 | PP | Blue | -40 °C/+140 °C | + | + | FDA | GL 45 | | GL 32 | |
| РР Сар | 10 899 11 | PP | Green | -40 °C/+140 °C | + | + | FDA | GL 45 | | - | |
| ii Cap | 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 | ltem No. | Material | Colour | Temperature resistance | Chemical resistance | Tightness | Con- formity | DIN- Threads | Special properties | |
|---|-----------|------------------------|-----------|---------------------------|---------------------|-----------|-----------------|-----------------|---------------------------|--|
| 2/3-Ports | | | | | | | | | | |
| 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 | 297 5 | PP | Blue/Grey | -40 °C/+140 °C | + | + | FDA | GL 45/14 | 3-Ports (GL 14) | |
| Screw cab GL 14 for tube connection | 298 4 | PP | Blue | -40 °C/+140 °C | + | + | - | GL 14 | | |
| Insert for screw cap GL 14, 1.6 mm [1/16 inch] iØ | 298 5 | PTFE/ Silicone | White | -50 °C/+230 °C | +++ | ++ | FDA | - | | |
| Insert for screw cap GL 14, 3.0 mm [-1/8 inch] iØ | 298 6 | PTFE/ Silicone | White | -50 °C/+230 °C | +++ | ++ | FDA | - | | |
| Insert for screw cap GL 14, 3.2 mm [1/8 inch] iØ | 298 7 | PTFE/ Silicone | White | -50 °C/+230 °C | +++ | ++ | FDA | - | | |
| Insert for screw cap GL 14, 6.0 mm -1/4 inch] iØ | 298 8 | 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) | 377 99 | PBT/PP/ PTFE | White | -40 °C/+140 °C | + | + | | GL 14 | | |
| Spare membrane filter for pressure equalization 0.2 μm | 298 9 | PP/PTFE | White | -40 °C/+140 °C | + | + | | - | | |
| 4-Ports | | | | | | | | | | |
| Screw cap HPLC GL 45 | 298 2 | PP | Blue/Grey | -40 °C/+140 °C | + | + | | GL 45 | 4-Ports (complete set) | |
| Spare set for HPLC cap | 298 3 | PP | Blue/Grey | -40 °C/+140 °C | + | + | | | 4-Ports (complete set) | |
| Pressure equalization set for 4 ports | 378 0 | 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 (1, 2 and 3 shown in the illustration): ① Screw cap GL 45 3 port (Art. No. 1129751) 1 pack (2 per pack)
② Insert for screw cap GL14 1.6 mm iØ, (Art. No. 1129815) 2 packs (1 per pack)
③ Screw cap GL 14 (Art. No. 1129814) 2 packs (2 per pack)
④ Insert for screw cap GL14 3.0 mm iØ, (Art. No. 1129816) 2 packs (1 per pack)
⑤ Pressure equalization set (complete) (Art. No. 1137799) 2 packs (1 per pack)



| | | | d | h | Pack. |
|-----------|---|--------|----|----|-------|
| Order No. | Description | Thread | mm | mm | 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 |
| 298 4 | Screw cap GL 14 for tube connection | GL 14 | 20 | 28 | 2 |
| 298 5 | Insert for screw cap GL 14, 1.6 mm [1/16 inch] iØ | | 13 | 13 | I |
| 298 6 | Insert for screw cap GL 14, 3.0 mm [-1/8 inch] iØ | | 13 | 13 | 1 |
| 298 7 | Insert for screw cap GL 14, 3.2 mm [1/8 inch] iØ | | 13 | 13 | 1 |
| 298 8 | Insert for screw cap GL 14, 6.0 mm [-1/4 inch] iØ | | 13 | 13 | I. |
| 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 | I |
| 298 9 | Spare membrane filter for pressure equalization 0.2 μm | | | | 2 |

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



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