



*Your specialist for chromatography and
pharmaceutical packaging*





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Company Profile

CHROMA GLOBE GbR was founded on November 15th, 2007.

The company's headquarters have been in Kreuzau since 2011, approx. 55 km west of Cologne.

The objective of the company is the production and distribution of high-quality laboratory and pharmaceutical packaging materials.

We aim to manufacture, sell high-quality laboratory and pharmaceutical products. As an independent, flexible, privately owned company managed by the owners, the company's goal is to quickly and reliably supply a worldwide customer base with innovative and high quality products at competitive prices.

We are pleased to announce that we are officially ISO 9001:2015 certified as of July 2024. This certification emphasises our ongoing commitment to the highest quality standards and our commitment to always provide you with first-class products and services.



Our customers are laboratory wholesalers, specialist dealers, manufacturers of analysis equipment, customers in the pharmaceutical industry, as well as laboratories and institutes.

Our range of products includes ...

❖ *a wide scope of laboratory glass for laboratories in the chromatography and analysis technology:*

- crimp and screw vials, micro inserts
- septa of different materials, Silicone / PTFE, butyl / PTFE, Viton, PTFE, silicone / aluminum
- crimp closures
- plastic closure
- flaring tools (manual, pneumatic and electric)
- plastic bottles
- syringe filters for HPLC

❖ *for use mainly by pharmaceutical users:*

- Injection vials and infusion bottles
- Injection stoppers, infusion stoppers and septa
- crimp closures, plastic closures
- flaring tools (manual, pneumatic and electric)
- Syringe filters
- Septa for laboratory closures (Schott screw caps GL16 – GL45)

In order to optimize customer service and to increase the flexibility required by the market, the key products – sealing washers (septas), closures and flanging tools – are produced exclusively in-house.



Shipping, Packaging, and Samples

Standard inventory items are typically ready for immediate shipment, usually within 24 hours of order receipt. All items are delivered without any distinct branding; our company's specific product codes or logos are absent from the packaging.

Given our business model of supplying only distributors or resellers who rebrand our products, we uphold a strict policy of generic packaging. Only batch numbers, essential for product recall and quality control, are included. Additionally, for glass products, a small pictorial representation of the item is displayed on the packaging's exterior to facilitate content identification. Customised labelling options can be offered in coordination with the customer.

We are dedicated to ensuring our customers are satisfied with our offerings. Therefore, we encourage interested parties to request no-cost samples for assessment, enabling them to determine the most suitable product for their specific device or application in terms of performance, user-friendliness, and cost-effectiveness. This enables a pre-purchase evaluation to select the item that best aligns with individual preferences.

Quotations and Orders

Our catalogue does not feature pricing, nor do we provide separate price lists. All pricing is determined individually, based on the volume of each order. For annual blanket orders, we can offer custom quotes that factor in the total quantity and the number of scheduled deliveries. For custom products not part of our standard offerings, please note that fulfilment can only proceed after approval of samples, designs, or specifications. Additionally, while we strive to match requested quantities for custom items precisely, actual deliveries may vary by up to 10% above or below the ordered amount.

Services

- **Technical Support**
 - Autosampler Compatibility
 - Cross-References
 - Application-Specific Questions
- **Sample Service**
 - Cost-free
 - Upon request dispatch directly to the end user
- **Distribution Service**
 - Shipping of standard items within 24 hours
 - Upon request dispatch directly to the end user (neutral delivery)
 - Customer-Specific Labelling
 - Stocking of annual call-off contracts
- **Product Trainings**
 - Product training either at the customer's site or in our company
 - Introduction to the production processes of vials and seals
- **Product Catalogue Support**
 - Texts, tables, drawings and photos as electronic data files

Company Profile



Contacts

Customer Service

(for quotes, samples, technical support, etc.):

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Order Processing

(for orders, delivery times, open orders, lead times, etc.):

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E-Mail: service@chroma-globe.de

General terms and conditions

All orders are subject to our general terms and conditions. These can be provided upon request or may be found on our website, www.chroma-globe.de, under the 'Imprint' section.

The following minimum order quantities need to be considered:

| Product Group: | Minimum Order Quantities: |
|--------------------------|---|
| Vials/Seals/Septa | 1.000 pieces |
| Filters/Syringes | 100 pieces |
| GC Injection Port Septa | 25 pieces |
| Capillary Connectors | 10 pieces (for Connectors for 2 columns); 1 piece (for Connectors for 3 columns) |
| Crimpers/Decappers | 1 piece |
| 2in1 KITs | 10 Kits |
| Vial Racks/Storage Boxes | 1 piece |

Notice:

All information is subject to technical modifications. All data related to dimensions and volumes are approximate. Specifications, terms, and pricing may be subject to change.

The products listed in the catalog are intended solely for general laboratory use, including research and development, analytical quality control, and/or routine measurements. They are not suitable for clinical applications (such as diagnostic, therapeutic, or prognostic use). Chroma Globe GmbH accepts no liability for any damages resulting from improper use or application of its products outside of their intended scope. The user is responsible for ensuring that the products are appropriate for the intended application. Application of the products on the human body is strictly prohibited, and the user assumes full liability for any damages arising from such use. Chroma Globe GmbH products are intended for use by qualified personnel only.

1. Crimp Neck Vials ND8 and Closures ND8

Crimp Neck Vials ND8 and Closures ND8 are used in autosamplers for their leak-proof seal, ensuring sample integrity and preventing contamination or evaporation. Their standardized 8mm neck size ensures compatibility with automated systems for efficient and reliable sample handling.

- Available capacities vary to suit specific sample sizes.
- Choose from flat, rounded, or conical base designs.
- Provided in both transparent and amber glass for different light-sensitivity requirements.
- Compatible with the vast majority of automated sampling systems.



Please note that certain micro-vials, particularly those with a conical base, may require a specialized stand for proper functionality and stability within an autosampler.

1.1 Crimp Neck Vials and Micro-Vials ND8



| RR 08 0326 | RR 08 0327 | RR 08 0328 | RR 08 0329 | RR 08 0330 |
|---|---|---|---|---|
| 0.7ml Crimp Neck Vial, 40 x 7mm, clear glass, 1st hydrol. class | 0.7ml Crimp Neck Vial, 40 x 7mm, amber glass, 1st hydrol. class | 0.8ml Crimp Neck Vial, 30 x 8.2mm, clear glass, 1st hydrol. class | 1.2ml Crimp Neck Vial, 40 x 8.2mm, clear glass, 1st hydrol. class | 1.2ml Crimp Neck Vial, 40 x 8.2mm, amber glass, 1st hydrol. Class |
| R. vol. < 11 µl | R. vol. < 11 µl | R. vol. < 11 µl | R. vol. < 20 µl | R. vol. < 20 µl |
| 10 x 100 pcs. per PP-Box | | | 100 pcs. per PP-Box | |



| RR 08 0331 | RR 08 0332 | RR 08 0317 | RR 08 0333 | RR 08 0334 |
|---|--|--|--|--|
| 0.3ml Micro-Vial, 31.5 x 5.5mm, clear glass, 1st hydrol. class, round bottom | 0.2ml Micro-Vial, 31.5 x 5.5mm, clear glass, 1st hydrol. class, conical | 0.7ml Micro-Vial, 40 x 7mm, clear glass, 1st hydrol. class, conical | 0.7ml Micro-Vial, 40 x 7mm, amber glass, 1st hydrol. class, conical | 0.4ml Micro-Vial, 30 x 7mm, amber glass, 1st hydrol. class, Conical |
| R. vol. < 6 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 3 µl |
| 10 x 100 pcs. per PP-Box | | | | |

| Art. No. | CR 08 0001 | DC 08 0002 | ÖS 08 0150 |
|------------------------|---|--|---|
| Description: | Crimper for 8mm Aluminum Crimp Cap | Decapper for 8mm Aluminum Crimp Cap | Opening plier for 8mm Aluminum Crimp Cap (sterilisable for clean room applications) |
| Unit = 1 piece per Box | | | Unit = 1 piece per PE-Bag |



1. Crimp Neck Vials and Closures ND8

1.2.1 Natural Rubber/TEF and RedRubber/PTFE Seals

Key features of the Crimp Neck Vials ND8 and Closures ND8:

- Operable across a broad thermal spectrum, ranging from -60°C to 160°C.
- Natural Rubber/TEF and RedRubber/PTFE liner material for routine analysis
- Temperature spectrum Natural Rubber/PTFE -40°C up to 120°C
- Temperature spectrum RedRubber/PTFE -40°C up to 160°C



| Art. No. | BV 08 0818 | BV 08 0438 | BV 08 0727 |
|---------------------|---|----------------------------|----------------------|
| Cap: | Aluminum Cap clear lacquered, 4mm centre hole | | |
| Septa: | Nat. Rubber red-orange/TEF transparent | RedRubber/PTFE transparent | RedRubber/PTFE beige |
| Durometer: | 60° shore A | 45° shore A | 45° shore A |
| Thickness: | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | |

1.2.2 Silicone/PTFE Seals

- Operable across a broad thermal spectrum, ranging from -60°C to 200°C.
- Optimally designed for applications requiring singular, precise injections.
- Available in various durometers to accommodate diverse needle geometries.
- Bilayer-coated silicone septa ensure minimal particulate release upon needle insertion.
- Exhibits superior cleanliness compared to traditional natural rubber or red rubber compounds.



| Art. No. | BV 08 0324 | BV 08 0753 | BV 08 0522 | BV 08 0523 | BV 08 1418 |
|---------------------|---|-----------------------------|--|--------------------------------------|---|
| Cap: | Aluminum Cap clear lacquered, 4mm centre hole | | | | |
| Septa: | Silicone white/ PTFE red | Silicone cream/ PTFE red | PTFE red/Silicone white/PTFE red (crimp cap with roll groove) | Silicone white/ PTFE red, SLIT | ZeroPEAK Septa, Silikon natural/ PTFE beige |
| Durometer: | 45° shore A | 55° shore A | 45° shore A | 45° shore A | 38° shore A |
| Thickness: | 1,0mm | 1,5mm | 1,0mm | 1,3mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | |

1.2.3 Other Crimp Seals and PE Push-On Cap

- With standard septa, the PTFE lamination provides an inert barrier between the sample and the liner carrier material.
- As a single PTFE liner it is only recommended to a limited extent. A liner thickness of 0.25 mm does not provide a tight seal between the vial and the cap. Possible evaporation of the sample may lead to incorrect analyses.
- Viton is resistant to a variety of corrosive organic substances; temperature resistant from -40°C to 240°C, main application in the petrochemical industry
- PE-Push-On caps as cost-effective alternative for standard crimp caps.



| Art. No. | BV 08 0984 | BV 08 0546 | BV 08 0547 | SC 08 1245 | SC 08 1360 |
|-----------------------|--|--|--|--|---|
| Cap: | Aluminum Cap, clear lacquered, 4mm centre hole, with roll grove | Aluminum Cap, clear lacquered, 4mm centre hole | Aluminum Cap, clear lacquered, 4mm centre hole | 8mm PE Push-On Cap, blue, with thinned penetration area | 8mm PE Push-On Cap, transparent, with thinned penetration area |
| Septa: | PTFE virginal | Viton black | Viton black | | |
| Durometer: | 53° shore A | 70° shore A | 70° shore A | | |
| Thickness: | 0,25mm | 1,0mm | 1,5mm | | |
| 100 pieces per PE-Bag | | | | | |

2. Screw Thread Vials ND8 and Closures ND8

Screw Thread Vials ND8 and Closures ND8 are compatible with autosamplers due to their standardized 8-425 thread design, ensuring precise fit and secure sealing. Their reliable performance minimizes sample evaporation and contamination, making them suitable for automated analytical applications.



Standard vials for GC and HPLC.

- Vials ND8 (screw thread 8-425) can be used on all common HPLC and GC autosamplers
- Vials ND8 with small opening (inner neck diameter at the thread 5.25mm +/- tolerances)
- Vials ND8 require micro-inserts with a diameter of 5mm
- All vials ND8 can also be offered as silanized versions
- Recommended 2in1 Kit combinations see page 12(further kit combinations upon request)

2.1 Screw Neck Vials ND8, small opening, 8-425 thread and Micro-Vials ND8



| GW 08 0193 | GW 08 0799 | GW 08 0194 | GW 08 0195 | GW 08 1317 GW 08 1318 |
|--|--|---|---|--|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrol. class, small opening | 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, amber glass, 1st hydrol. class, small opening | 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrol. class, small opening, label + filling lines | 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, amber glass, 1st hydrol. class, small opening, label + filling lines | 1.1ml Microliter Screw Neck Vial, 32 x 11.6mm, clear glass, 1st hydrol. class (amber glass) |
| SILANIZED GW 08 0193s | SILANIZED GW 08 0799s | SILANIZED GW 08 0194s | SILANIZED GW 08 0195s | SILANIZED GW 08 1317s GW 08 1318s |
| R. vol. < 110 µl | R. vol. < 110 µl | R. vol. < 110 µl | R. vol. < 110 µl | R. vol. < 15 µl |

100 pcs. per PP-Box



Vial Racks see page 46.

2.1 Screw Neck Vials ND8 (cont.)



| GW 08 0356 | GW 08 0859 GW 08 0860 |
|--|--|
| 1.1ml Micro-Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrol. class, conical, small opening | 1.1ml Microliter Screw Neck Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, with rounded glass base, 1st hydrol. class (amber glass) |
| R. vol. < 3 µl | R. vol. < 15 µl |

100 pcs. per PP-Box

2.2 Micro-Inserts for Vials with small opening



| ME 05 0289 | ME 05 0357 | ME 05 0358 | ME 05 0290 |
|--|--|--|---|
| 0.15ml Micro-Insert, 31 x 5mm, clear glass, 1st hydrol. class, 15mm top | 0.2ml Micro-Insert, 31 x 5mm, clear glass, 1st hydrol. class, 9mm top | 0.2ml Micro-Insert, 31 x 5mm, clear glass, 1st hydrol. class, flat bottom | 0.15ml Micro-Insert, 29 x 5mm, clear glass, 1st hydrol. class, with assembled plastic spring |
| SILANIZED ME 05 0289s | SILANIZED ME 05 0357s | SILANIZED ME 05 0358s | SILANIZED ME 05 0290s |
| R. vol. < 1 µl | R. vol. < 2 µl | R. vol. < 8 µl | R. vol. < 1 µl |

10 x 100 pcs. per PP-Box

R. vol. = Residual Volume (µl)

2. Screw Thread Vials and Closures ND8

2.3 PP Screw Seals ND8

- Wide range of pre-assembled closures
- Different colours available: standard black, Upon request white and pink
- Available liner material: Natural Rubber/TEF, RedRubber/PTFE, Butyl/PTFE, Silicone/PTFE, Silicone/Aluminium

2.3.1 Natural Rubber/TEF and RedRubber/PTFE Seals

- Temperature performance : Natural rubber operates from -40°C to 120°C; RedRubber/PTFE extends this to 160°C.
- Puncture characteristics: Natural rubber is more difficult to penetrate and produces more fragmentation than RedRubber.
- Fragmentation resistance: RedRubber and Butyl outperform natural rubber in minimizing fragmentation.
- Resealing and Purity: Natural rubber is outstanding for multiple punctures but less clean than RedRubber or Butyl.



| Art. No. | SV 08 0657 | SV 08 0658 | SV 08 0766 | SV 08 0763 | SV 08 0916 |
|---------------------|--|----------------------------|----------------------|------------------------|-------------------------------------|
| Cap: | Polypropylene Screw Cap black, 5.5mm centre hole, 8-425 thread | | | | |
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE transparent | RedRubber/PTFE beige | Butyl cream /PTFE grey | Silicone white/Aluminum foil silver |
| Durometer: | 60° shore A | 45° shore A | 45° shore A | 55° shore A | 50° shore A |
| Thickness: | 1,3mm | 1,0mm | 1,0mm | 1,3mm | 1,3mm |
| 100 pcs. per PE-Bag | | | | | |

2.3.2 Silicone/PTFE Seals

- Temperature performance: -60°C to 200°C.
- Recommended primarily for single-use applications.
- Hardness options are provided to match various needle specifications.
- Silicone offers superior purity compared to natural rubber RedRubber or butyl.
- Silicone septa are double-coated, effectively minimizing the creation of particulates during needle insertion.



| Art. No. | SV 08 0158 | SV 08 0759 | SV 08 0761 | SV 08 0293 | SV 08 0495 | SV 08 0439 |
|---------------------|--|-------------------------|----------------------------------|----------------------------------|-------------------------------|--------------------------------|
| Cap: | Polypropylene Screw Cap black, 5.5mm centre hole, 8-425 thread | | | | | |
| Septa: | Silicone white/PTFE red | Silicone cream/PTFE red | Silicone blue transp./PTFE white | PTFE red/Silicone white/PTFE red | Silicone white/PTFE red, slit | Silicone white/PTFE blue, slit |
| Durometer: | 45° shore A | 55° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,5mm | 1,3mm | 1,0mm | 1,3mm | 1,5mm |
| 100 pcs. per PE-Bag | | | | | | |

2.3.3 Natural Rubber/TEF, RedRubber/PTFE, Butyl/PTFE and Silicone/PTFE Seals, closed top



| Art. No. | SV 08 0760 | SV 08 0767 | SV 08 1001 | SV 08 0762 |
|---------------------|---|----------------------|------------------------|-------------------------|
| Cap: | Polypropylene Screw Cap black, closed top, 8-425 thread | | | |
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | Butyl cream /PTFE grey | Silicone white/PTFE red |
| Durometer: | 60° shore A | 45° shore A | 55° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,0mm | 1,3mm | 1,3mm |
| 100 pcs. per PE-Bag | | | | |

2. Screw Thread Vials and Closures ND8

2.4 Septa ND8



| Art. No. | SE 08 0018 | SE 08 0072 | SE 08 0765 | SE 08 0073 | SE 08 0089 | SE 08 0074 |
|-----------------------|----------------|---|----------------------|-----------------------|--------------|-------------------------|
| Septa: | PTFE, Virginal | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | Butyl cream/PTFE grey | Viton, Black | Silicone white/PTFE red |
| Hardness: | 53° shore A | 60° shore A | 45° shore A | 55° shore A | 70° shore A | 45° shore A |
| Thickness | 0,25mm | 1,0mm | 1,0mm | 1,3mm | 1,0mm | 1,3mm |
| 1.000 pcs. per PE-Bag | | | | | | |



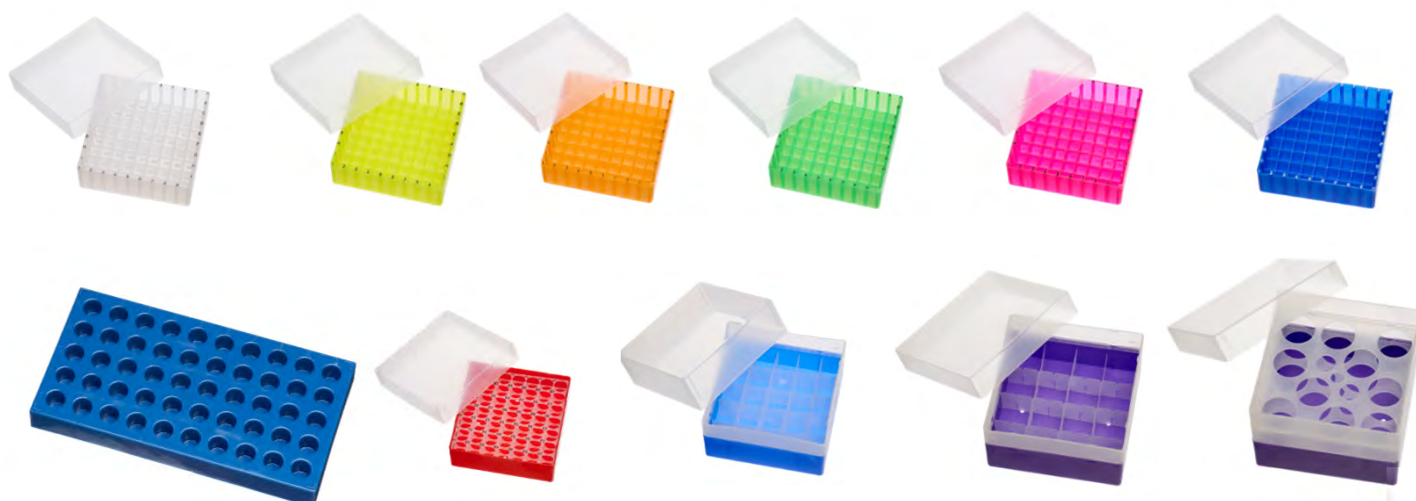
| Art. No. | SE 08 0752 | SE 08 0076 | SE 08 0915 | SE 08 0075 | SE 08 0118 | SE 08 1204 |
|-----------------------|-------------------------|---|-------------------------------------|--------------------------------------|----------------------------------|--------------------------------|
| Septa: | Silicone cream/PTFE red | Silicone white/PTFE blue, slit; recomment.by VWR Merck®/Hitachi | Silicone white/Aluminum foil silver | Silicone blue transparent/PTFE white | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, slit |
| Hardness: | 55° shore A | 55° shore A | 50° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness | 1,5mm | 0,9mm | 1,3mm | 1,3mm | 1,0mm | 1,5mm |
| 1.000 pcs. per PE-Bag | | | | | | |

2.5 PP Screw Caps ND8



| Art. No. | SK 08 0287 | SK 08 0756 | SK 08 0757 | SK 08 0758 |
|---------------------|---|--|---|--|
| Cap: | Polypropylene Screw Cap, black, 5.5mm centre hole | Polypropylene Screw Cap, black, closed top | Polypropylene Screw Cap, white, 5.5mm centre hole | Polypropylene Screw Cap, white, closed top |
| 100 pcs. per PE-Bag | | | | |

Suitable Vial Racks and Storage Boxes for Screw Neck Vials ND8 on page 46



2. Screw Thread Vials and Closures ND8

2.6 Special 2in1 Kits for Screw Neck Vials ND8

For an analytical workflow, both the vial and the closure are needed at the same time. To make this easier, Chroma Globe GmbH offers 2-in-1 KITs with 100 vials and 100 closures packed together in a reusable blue polypropylene box. This packaging keeps the advantages of the single products, such as CleanPack vials, tamper-evident seals, and batch traceability. Another benefit is that customers only have to order one item, which makes purchasing simpler.

- Each combination of a screw neck vial ND8 is now available with any 8mm screw seal listed in the catalogue as a practical 2in1 kit!



KP 08 1841

| | |
|---|--|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrol. class, small opening (GW 08 0193) | 8mm PP Screw Cap, black, centre hole, 8-425 thread; Natural Rubber red- orange/ TEF transparent, 60° shore A, 1.3mm (SV 08 0657) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit



KP 08 1145

| | |
|---|---|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrol. class, small opening (GW 08 0193) | 8mm PP Screw Cap, black, centre hole, 8-425 thread; Silicone white/PTFE red, 45° shore A, 1.3mm (SV 08 0158) |
|---|---|

100 Vials and 100 Closures per 2in1 Kit



KP 08 1045

| | |
|---|--|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrol. class, small opening (GW 08 0193) | 8mm PP Screw Cap, black, centre hole, 8-425 thread; PTFE red/Silicone white/PTFE red, 45° shore A, 1.0mm (SV 08 0293) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit



KP 08 1842

| | |
|--|--|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrolytic class, small opening, label and filling lines (GW 08 0194) | 8mm PP Screw Cap, black, centre hole, 8-425 thread; Silicone white/PTFE red, 45° shore A, 1.3mm (SV 08 0158) |
|--|--|

100 Vials and 100 Closures per 2in1 Kit



KP 08 1843

| | |
|--|--|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, clear glass, 1st hydrolytic class, small opening, label and filling lines (GW 08 0194) | 8mm PP Screw Cap, black, centre hole, 8-425 thread; Silicone white/PTFE red, 45° shore A, 1.3mm, Slit (SV 08 0495) |
|--|--|

100 Vials and 100 Closures per 2in1 Kit



KP 08 1844

| | |
|--|--|
| 1.5ml Screw Neck Vial, 8-425 thread, 32 x 11.6mm, amber glass, 1st hydrolytic class, small opening, label and filling lines (GW 08 0195) | 8mm PP Screw Cap, black, centre hole, 8-425 thread; Silicone white/PTFE red, 45° shore A, 1.3mm (SV 08 0158) |
|--|--|

100 Vials and 100 Closures per 2in1 Kit

2.7 Screw Vials ND8, with pre-assembled Screw Cap ND8

- Preassembled chromatography vials and caps offer several advantages. They provide a secure and tight vial/closure combination that prevents contamination and ensures the integrity of your samples. These vials are easy to handle and allow for quick and convenient setup, saving time during experiments. The pre-assembled design reduces the risk of leakage and ensures a consistent seal from experiment to experiment. In addition, the high quality closures maintain a tight seal even with volatile or sensitive substances. Overall, the use of pre-assembled vials increases the safety, reliability and efficiency of your laboratory procedures.



Chroma Globe GmbH can provide any type of pre-sealed vials and closures. Please do not hesitate to send us your request.

3. Short Thread Vials ND9 and Closures ND9

Short Thread Vials ND9 and Closures ND9 are widely used on autosamplers because their 9 mm short thread design ensures a secure seal and easy handling with robotic systems. Their standardized dimensions guarantee compatibility with most common autosampler models.










“All-purpose” vials for GC and HPLC.

- Vials ND9 (short thread) can be used on all common HPLC and GC autosamplers
- Vials ND9 with wide opening (inner neck diameter at the thread 6.25mm +/- tolerances)
- Vials ND9 require micro-inserts with a diameter of 6mm
- All vials ND9 can also be offered as silanized versions
- Recommended 2in1 Kit combinations see pages 19-20 2(further kit combinations upon request)











3.1 Short Thread Vials ND9, wide opening, and Micro-Vials with Short Thread ND9

3.2 Micro-Inserts for Vials ND9

| | | | | | | | | |
|--|---|---|--|---|---|---|--|---|
|  |  |  |  |  |  |  |  |  |
| KG 09 0196 | KG 09 0197 | KG 09 0695 | KG 09 0188 | ME 06 0218 | ME 06 0361 | ME 06 0362 | ME 06 0232 | ME 06 1174 |
| 1.5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening | 1.5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines | 1.5ml Short Thread Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, | 1.5ml Short Thread Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, label +filling lines | 0.25ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 15mm top | 0.3ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 12mm top | 0.35ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, flat bottom | 0.25ml Micro-Insert, 29 x 5.7mm, clear glass, 1st hydrol. class, with assembled plastic spring | 0.25ml PE Micro-Insert, 29 x 6mm, clear, with integrated plastic spring |
| SILANIZED KG 09 0196s | SILANIZED KG 09 0197s | SILANIZED KG 09 0695s | SILANIZED KG 09 0188s | SILANIZED ME 06 0218s | SILANIZED ME 06 0361s | SILANIZED ME 06 0362s | SILANIZED ME 06 0232s | |
| R. vol. < 120µl | R. vol. < 120µl | R. vol. < 120µl | R. vol. < 120µl | R. vol. < 4 µl | R. vol. < 4 µl | R. vol. < 8 µl | R. vol. < 4 µl | R. vol. < 4 µl |
| 100 pcs. per PP-Box | | | | 10 x 100 pcs. per PP-Box | | | | |







3.1 Short Thread Vials ND9, wide opening and Micro-Vials with Short Thread ND9 (Cont.)

BaseBond Vials








| | | | | | | | |
|--|---|--|--|--|---|--|--|
|  |  |  |  |  |  |  |  |
| KG 09 0682 | KG 09 0683 | KG 09 1351 | KG 09 1352 | KG 09 1562 | KG 09 1563 | KG 09 2050 | KG 09 2051 |
| Short Thread Vial with integrated 0.2 ml Micro-Insert, 32 x 11.6mm, clear glass, 1 st hydrol. Class, | Short Thread Vial with integrated 0.2 ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, | Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch and filling lines, | Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch and filling lines, | Short Thread Vial with integrated 0.3 ml Micro-Insert, 32 x 11.6mm, clear glass, 1 st hydrol. class, | Short Thread Vial with integrated 0.3 ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, | Short Thread Vial with integrated 0.3ml Micro-Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch and filling lines, | Short Thread Vial with integrated 0.3ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch and filling lines, |
| with small micro-Insert "Base Bond" | with small micro-Insert "Base Bond" | with small micro-Insert "Base Bond" | with small micro-Insert "Base Bond" | with wide micro-Insert "Base Bond" | with wide micro-Insert "Base Bond" | with wide micro-Insert "Base Bond" | with wide micro-Insert "Base Bond" |
| R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 3 µl |
| 100 pcs. per PP-Box | | | | | | | |

R. vol. = Residual Volume (µl)

3.1 Short Thread Vials ND9, wide opening and Micro-Vials with Short Thread ND9 (Cont.)

| | | | | TopBond | TopBond |
|--|--|---|---|--|--|
|  |  |  |  |  |  |
| KG 09 1122 | KG 09 0863 KG 09 0864 | KG 09 0365 | KG 09 1201 KG 09 1321 | KG 09 0363 | KG 09 0364 |
| 0,9ml Total Mikroliter Short Thread Vial 32 x 11,6mm, clear glass, 1. hydrol. Class | 1,1ml Microliter Short Thread Vial 32 x 11,6mm, clear glass, (amber glass) 1st hydrol. class with rounded glass base | 1.1ml Microliter Short Thread Vial , 32 x 11,6mm , clear glass, 1.hydrol. Klasse SILANIZED KG 09 0365s | 1.1ml Microliter Short Thread Vial , 32 x 11,6mm, clear glass, (amber glass) 1.hydrol. Klasse SILANIZED KG 09 1201s | Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11,6mm, clear glass, 1st hydrol. class, writing patch and filling lines, with small micro-insert „TopBond“ | Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11,6mm, amber glass, 1st hydrol. class, writing patch and filling lines, with small micro-insert „TopBond“ |
| R. vol. < 1 µl | R. vol. < 15 µl | R. vol. < 15 µl | R. vol. < 15 µl | R. vol. < 1 µl | R. vol. < 1 µl |
| 100 pcs. per PP-Box | | | | | |

3.3 Plastic Micro-Vials ND9

| | | | | | | |
|--|--|---|---|---|--|---|
|  |  |  |  |  |  |  |
| KG 09 0446 | KG 09 0447 | KG 09 0469 | KG 09 0471 | KG 09 0468 | KG 09 0466 | KG 09 0470 |
| 1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11,6mm, slightly concave shaped bottom usable for PFAS analysis | 1.5ml PP Short Thread Vial, amber, filling lines, 32 x 11,6mm, slightly concave shaped bottom usable for PFAS analysis | 0,3ml PP Short Thread Micro-Vial, transparent, 32 x 11,6mm usable for PFAS analysis | 0,3ml PP Short Thread Micro-Vial, amber, 32 x 11,6mm usable for PFAS analysis | 0,7ml PP Short Thread Micro-Vial, transparent, 32 x 11,6mm usable for PFAS analysis | CoreClose TPX Short Thread Vial, clear 32 x 11,6mm, with integrated 0.2ml Glass Micro- Insert, 15mm top | 0,3ml TPX Short Thread Micro-Vial, clear, 32 x 11,6mm |
| R. vol. < 110µl | R. vol. < 110µl | R. vol. < 4 µl | R. vol. < 4 µl | R. vol. < 80µl | R. vol. < 1 µl | R. vol. < 4 µl |
| 100 pieces per PE-Bag | | | | | | |

R. vol. = Residual Volume (µl)

Suitable Vial Racks and Storage Boxes for Screw Neck Vials ND9 on page 46



3. Short Thread Vials and Closures ND9

3.4 PP Short Thread Seals ND9

- Can be used on almost all HPLC and GC autosamplers
- Large range of vials and closures
- Also available as bonded closures
(advantage: thick (blunt) HPLC needles cannot push the septum into the vial)
- Also available as pre-sealed vial-closure combinations
- 1.5 mL polypropylene vials N 9 for special applications (e.g., IC, CE, PFAS, etc.)



Septa Knowledge center:

PTFE virginial septa:

- Very inert and temperature resistant therefore also as coating on most other septa
- No elastomer therefore limited sealing and reclosing characteristics
- Only recommended for non-critical HPLC applications
- Mostly used by Merck/Hitachi and Waters
- Application area: HPLC

Natural Rubber/TEF septa:

- Standard quality for GC and HPLC
- Temperature resistant from -40 °C up to 120 °C
- Ideal for multiple injections due to high resealability
- Not as clean as synthetic rubber
- Punching liners (are punched from sheet/roll material)
- Application area: HPLC and GC

RedRubber/PTFE beige /transparent) septa:

- NEW standard quality for HPLC und GC
- synthetic rubber is cleaner and softer as Natural Rubber
- Relatively cost effective
- Temperature resistant from -40 °C up to 110 °C
- Liners made of roll and plate material
- Application area: HPLC/GC

Silicone/Aluminum septa:

- All chemical and physical properties of Silicon/PTFE, however temperature resistant from -60°C up to 220°C
- Often used on PERKINELMER instruments
- More expensive than PTFE-laminated septa
- Field of usage: Headspace

(PTFE)/Silicone/PTFE septa:

- Silicone is the cleanest synthetic elastomer and is therefore used for critical analysis
- Temperature resistant from -60°C up to 200°C
- As synthetic elastomer resealability properties not as good as with Natural Rubber
- Speciality: both-sided PTFE-lamination on Silicone-Septa for low coring (generation of particles during penetration)
- Application area: GC/HPLC/HEADSPACE

Silicone/PTFE septa with slit:

- Temperature resistance from -60° C to 200° C
- Preferably recommended for single use injections due to less good reclosing properties
- Slit septa in HPLC as penetration aid for blunt needles and to create a valve effect in case of multiple injections
- Application in GC, HPLC and headspace analysis

Choosing the appropriate septum depends on the specific application. Most septa feature a PTFE coating on one side, which provides excellent chemical resistance and acts as an inert barrier between the sample and the septum's substrate. The base materials vary in their physical and chemical properties, including temperature tolerance, resealability, cleanliness, hardness, and thickness.

| Septa material | Hardness (shore) | Hardness (needle penetration) | Temperature spectrum | Analytical cleanliness | Fragmentation (Coring) | Resealability (in case of multiple injections) |
|------------------------|---------------------|-------------------------------|----------------------|------------------------|------------------------|--|
| PTFE virginial | 53° shore D | very hard | -200 °C / +260 °C | very high | high, large particles | no resealability |
| Natural rubber /PTFE | 60° shore A | very hard | -40 °C / +120 °C | low | high, large particles | high |
| Red Rubber /TEF | 45° shore A | soft | -40 °C / +160 °C | medium | medium | medium |
| Butyl | 55° shore A | medium hard | -40 °C / +120 °C | medium | medium | medium |
| Butyl/PTFE | 50° shore A | medium hard | -40 °C / +120 °C | medium | medium | medium |
| Silicone / PTFE | 40°/45°/55° shore A | soft | -60 °C / +200 °C | high | low to medium | low to medium |
| Silicone / Aluminium | 55° shore A | medium hard | -60 °C / +220 °C | high | medium | medium |
| PTFE / Silicone / PTFE | 45° shore A | soft | -60 °C / +200 °C | high | very low | very low |
| Viton | 70° shore A | very hard | -60 °C / +260 °C | low | high, large particles | very low |

3. Short Thread Vials and Closures ND9

3.4.1 PP Short Thread Cap ND9, transparent, 6mm centre hole



| Art. No. | SV 09 0774 | SV 09 0659 | SV 09 0775 | SV 09 0661 | SV 09 0663 | SV 09 0662 | SV 09 0913 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Durometer | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3.4.2 PP Short Thread Cap ND9, blue, 6mm centre hole



| Art. No. | SV 09 0507 | SV 09 0433 | SV 09 0776 | SV 09 0159 | SV 09 0164 | SV 09 0187 | SV 09 0948 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Durometer: | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3.4.3 PP Short Thread Cap ND9, red, 6mm centre hole



| Art. No. | SV 09 0781 | SV 09 0435 | SV 09 0777 | SV 09 0666 | SV 09 0668 | SV 09 0667 | SV 09 0949 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Durometer: | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3.4.4 PP Short Thread Cap ND9, black, 6mm centre hole



| Art. No. | SV 09 0782 | SV 09 0436 | SV 09 0778 | SV 09 0166 | SV 09 0167 | SV 09 0163 | SV 09 0952 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Durometer: | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3. Short Thread Vials and Closures ND9

3.4.5 PP Short Thread Cap ND9, green, 6mm centre hole



| Art. No. | SV 09 0783 | SV 09 0434 | SV 09 0779 | SV 09 0162 | SV 09 0675 | SV 09 0674 | SV 09 0950 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Hardness: | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3.4.6 PP Short Thread Cap ND9, yellow, 6mm centre hole



| Art. No. | SV 09 0784 | SV 09 0432 | SV 09 0780 | SV 09 0160 | SV 09 0678 | SV 09 0677 | SV 09 0951 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Hardness: | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3.4.7 PP Short Thread Cap ND9, glitter pink, 6mm centre hole



| Art. No. | SV 09 2005 | SV 09 2006 | SV 09 1801 | SV 09 1639 | SV 09 1918 | SV 09 1824 | SV 09 2007 |
|---------------------|---------------|---------------------------------------|------------------------|--------------------------|-----------------------------------|---------------------------------|--|
| Septa: | PTFE virginal | Natrual rubber red-orange TEF transp. | RedRubber / PTFE beige | Silicone white/ PTFE red | PTFE red/ Silicon white/ PTFE red | Silicone white/ PTFE blue, slit | Silicone white/Aluminum foil silver (recom. for PFAS analysis) |
| Hardness: | 53° shore D | 60° shore A | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,2mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | | |

3.4.8 Seals with special slit (Y-SLIT // Y-PRE-CUT)

•The design of these septa involves a Y-shaped incision exclusively in the silicone, ensuring the PTFE layer stays intact. This critical feature eliminates the concentration variations that can occur with completely slit septa.

•Providing superior entry for blunt and broad instrument needles, this technology actively combats the concentration fluctuations that are a common issue with standard slit or cross-slit septa.



| Art. Nr. | SV 09 1241 | SV 09 1240 | SV 09 1239 | SV 09 1234 |
|---------------------|---|-----------------------|---|-----------------------|
| Cap: | PP SC, transparent, 6mm hole | PP SC, blue, 6mm hole | PP SC, transparent, 6mm hole | PP SC, blue, 6mm hole |
| Septa: | Silicone white/PTFE red,55° shore A,1,0mm, Y-slit | | Silicone white/PTFE red, 55° shore A,1,0mm, Y-pre-cut | |
| 100 pcs. per PE-Bag | | | | |

3. Short Thread Vials and Closures ND9

3.4.9 Seals for high temperature analysis and trace analysis

- 9mm short thread seals with high purity PTFE virginal, or Aluminum septa
- Perfect for GCMS and LCMS
- An O-ring ensures 100% tightness



| Art. No. | SV 09 1005 | SV 09 1004 | SV 09 1007 | SV 09 1006 |
|-----------|---|---|--|--|
| Cap: | PP SC, transparent, 6mm hole | PP SC, blue, 6mm hole | PP SC, transparent, 6mm hole | PP SC, blue, 6mm hole |
| Septa: | Aluminum Septa (additional sealing by O-ring) | Aluminum Septa (additional sealing by O-ring) | PTFE virginal, 0,25mm (additional sealing by O-ring) | PTFE virginal, 0,25mm (additional sealing by O-ring) |
| Hardness: | | | 53° shore A | 53° shore A |
| Thickness | 0,1mm | 0,1mm | 0,25mm | 0,25mm |

100 pcs. per PE-Bag

3.4.10 Bonded Seals ND9

(Cap + Liner form an inseparable unit, so that the liner cannot be pushed into the vial even with a blunt needle)

- A distinctive attribute of a particular closure system is its ability to create a permanent, inseparable bond between the screw cap and septum. This is achieved through a proprietary manufacturing process that alters the molecular structure of the PP screw cap's surface and modifies the septum, enabling a robust seal without the need for additional adhesives.
- Comparable systems on the market are LECTRABOND closure from WATERS®, the INTERSEAL closure from Agilent and the UltraBond closure from Thermo (La-Pha-Pack)



| Art. No. | SV 09 0165 | SV 09 1681 | SV 09 1817 | SV 09 1757 | SV 09 0772 | SV 09 0773 |
|-----------|-------------------------|--|---------------------------|--|---------------------------|--|
| Cap: | PP SC, blue, 6mm hole | PP SC, blue, 6mm hole | PP SC, blue, 6mm hole | PP SC, blue, 6mm hole | PP SC, blue, 6mm hole | PP SC, blue, 6mm hole |
| Septa: | Silicone white/PTFE red | Silicone white /PTFE blue, SLIT | Silicone beige/PTFE white | Silicone beige/PTFE white, SLIT | Silicone beige/PTFE white | Silicone beige/PTFE white, SLIT |
| Hardness: | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A |
| Thickness | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |

100 pcs. per PE-Bag

3.4.11 PP Short Thread Cap ND9, blue, with closed top



| Art. No. | SV 09 0786 | SV 09 1403 | SV 09 0787 |
|------------|---|---------------------------------------|---------------------------------------|
| Cap: | PP Short Thread Cap, blue, closed top | PP Short Thread Cap, blue, closed top | PP Short Thread Cap, blue, closed top |
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber / PTFE beige | Silicone white/PTFE red |
| Hardness: | 60° shore A | 45° shore A | 55° shore A |
| Thickness: | 1,0mm | 1,0mm | 1,0mm |

100 pcs. per PE-Bag

3.4.12 Magnetic Short Thread Seals, 6mm centre hole (CTC GC PAL + Thermo Scientific TriPlus)



NEW

NEW

| Art. No. | SV 09 1153 | SV 09 1173 | SV 09 1124 | SV 09 2407 | SV 09 2408 |
|------------|---|---|---|---|---|
| Cap: | PP SC, blue, with assembled magnetic crimp cap ND11, gold, 6mm hole | PP SC, blue, with assembled magnetic crimp cap ND11, gold, 6mm hole | PP SC, blue, with assembled magnetic crimp cap ND11, gold, 6mm hole | MagCap ND9 Magnetic Short Thread Screw Cap, silver, with hole | MagCap ND9 Magnetic Short Thread Screw Cap, silver, with hole |
| Septa: | Silicone white/PTFE red | Silicone white/PTFE blue, slit | Natural Rubber red-orange/TEF transparent | Silicone white/PTFE red | Silicone white/PTFE blue, slit |
| Hardness: | 45° shore A | 55° shore A | 60° shore A | 45° shore A | 55° shore A |
| Thickness: | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |

100 pcs. per PE-Bag

3. Short Thread Vials and Closures ND9

3.5 Special 2in1 Kits for Short Thread Vials and Closures ND9

For an analytical workflow, both the vial and the closure are needed at the same time. To make this easier, Chroma Globe GmbH offers 2-in-1 KITs with 100 vials and 100 closures packed together in a reusable blue polypropylene box. This packaging keeps the advantages of the single products, such as CleanPack vials, tamper-evident seals, and batch traceability. Another benefit is that customers only have to order one item, which makes purchasing simpler.



3.5.1 Special 2in1 Kits for Agilent LC Autosampler



KP 09 1895

| | |
|---|--|
| 1,5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0197) | 9mm PP Short Thread Cap, blue, with centre hole; RedRubber/PTFE beige, 45° shore A, 1,0mm (SV 09 0776) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit



KP 09 1142

| | |
|---|--|
| 1,5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0197) | 9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1,0mm (SV 09 0159) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit



KP 09 1378

| | |
|---|--|
| 1,5ml Short Thread Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0188) | 9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1,0mm (SV 09 0159) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit

3.5.2 Special 2in1 Kits for Merck/Hitachi LC Autosampler



KP 09 1896

| | |
|---|--|
| 1,5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0197) | 9mm PP Short Thread Cap, blue, centre hole; Natural Rubber red-orange/TEF transparent, 60° shore A, 1,0mm (SV 09 0433) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit



KP 09 1142

| | |
|---|--|
| 1,5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. Class, wide opening, label + filling lines (KG 09 0197) | 9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1,0mm (SV 09 0159) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit



KP 09 1897

| | |
|---|--|
| 1,5ml Short Thread Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0188) | 9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE blue, 55° shore A, 1,0mm, Slit (SV 09 0187) |
|---|--|

100 Vials and 100 Closures per 2in1 Kit

3.5.3 Special 2in1 Kits for Shimadzu LC Autosampler



KP 09 1898

| | |
|---|---|
| 1,5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0197) | 9mm PP Short Thread Cap, black, with centre hole; RedRubber / PTFE beige, 45° shore A, 1,0mm (SV 09 0778) |
|---|---|

100 Vials and 100 Closures per 2in1 Kit



KP 09 1899

| | |
|---|---|
| 1,5ml Short Thread Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0197) | 9mm PP Short Thread Cap, black, centre hole; Silicone white/PTFE red, 55° shore A, 1,0mm (SV 09 0166) |
|---|---|

100 Vials and 100 Closures per 2in1 Kit



KP 09 1900

| | |
|---|---|
| 1,5ml Short Thread Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, label + filling lines (KG 09 0188) | 9mm PP Short Thread Cap, black, centre hole; Silicone white/PTFE red, 55° shore A, 1,0mm (SV 09 0166) |
|---|---|

100 Vials and 100 Closures per 2in1 Kit

3. Short Thread Vials and Closures ND9

3.5.4 Special 2in1 Kits for Waters LC Autosampler



KP 09 1901

1,5ml
Short Thread Vial,
32 x 11.6mm,
clear glass,
1st hydrol. class,
wide opening,
label + filling lines
(KG 09 0197)

9mm
Bonded
PP Short Thread Cap,
blue, centre hole;
Silicone beige/PTFE
white, 45° shore A,
1.0mm
(SV 09 0772)

100 Vials and 100 Closures per 2in1 Kit



KP 09 1902

1,5ml
Short Thread Vial,
32 x 11.6mm,
clear glass,
1st hydrol. class,
wide opening,
label + filling lines
(KG 09 0197)

9mm
Bonded
PP Short Thread Cap,
blue, centre hole;
Silicone beige/PTFE
white, 45° shore A,
1.0mm, **slit**
(SV 09 0773)

100 Vials and 100 Closures per 2in1 Kit



KP 09 1903

1,5ml
Short Thread Vial,
32 x 11.6mm,
amber glass,
1st hydrol. class,
wide opening,
label + filling lines
(KG 09 0188)

9mm
Bonded
PP Short Thread Cap,
blue, centre hole;
Silicone beige/PTFE
white, 45° shore A,
1.0mm, **slit**
(SV 09 0773)

100 Vials and 100 Closures per 2in1 Kit



KP 09 1904

Short Thread Vial
with integrated 0.2ml
Micro-Insert,
32 x 11.6mm,
clear glass,
1. hydrol. class,
"Base Bonded",
with small
micro-insert
(KG 09 0682)

9mm
Bonded
PP Short
Thread Cap,
blue, centre hole;
Silicone beige/PTFE
white,
45° shore A, 1.0mm
(SV 09 0772)

100 Vials and 100 Closures per 2in1 Kit



KP 09 1905

1.1ml
Microliter Short
Thread Vial ND9,
32 x 11.6mm,
clear glass,
1st hydrolytic class,
solid cone,
with shaped glass
bottom
(KG 09 0365)

9mm
Bonded
PP Short
Thread Cap,
blue, centre hole;
Silicone beige/PTFE
white,
45° shore A, 1.0mm
(SV 09 0772)

100 Vials and 100 Closures per 2in1 Kit



KP 09 1906

0,9ml
Total Mikroliter
Short Thread Vial
32 x 11.6mm,
clear glass,
.. 1st hydrolytic class
(KG 09 1122)

9mm
Bonded
PP Short
Thread Cap,
blue, centre hole;
Silicone beige/PTFE
white,
45° shore A, 1.0mm,
slit
(SV 09 0773)

100 Vials and 100 Closures per 2in1 Kit

3.6 Short Thread Vials ND9, with pre-assembled Short Threads Caps ND9

More and more customers wish to obtain vials which are already crimped or screwed with a seal of their choice. For example the tobacco industry analyses the smoke of a cigarette which is injected into an already crimped vial. Also a lot of EPA Vials are bought with the appropriate closure already screwed on top of the vial. **Chroma Globe GmbH** can provide any type of pre-sealed vials and closures.



3. Short Thread Vials and Closures ND9

3.7 PFAS Safe Guard Vials, Closures and 2in1 Kits ND9

PFAS stands for per- and polyfluoroalkyl substances, and are colloquially known as “forever chemicals.” They are a group of man-made chemicals that have been widely used in various industrial and consumer products since the 1940's. PFAS are known for their strong chemical bonds, which make them resistant to heat, water, and oil. This property has made them popular for use in a wide range of applications, including firefighting foams, non-stick cookware (such as Teflon), waterproof fabrics, food packaging, and many other household and industrial products.



PFAS CAN BE FOUND IN:

- Environmental monitoring
- Product testing
- Industrial quality assurance
- Commercial household cleaning products
- Food packaging

Goals of the EPA are to ensure science-based decision making to identify which PFAS may pose human health and ecological risks and develop tests to measure, remove and destroy them.

3.7.1 PFAS Safe Guard Vials and Closures ND9

3.7.1.1 PFAS Safe Guard PP Vials ND9



| KG 09 0446 | KG 09 0469 | KG 09 0468 |
|---|--|---|
| 1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11.6mm, slightly concave shaped bottom | 0.3ml PP Short Thread Micro-Vial, transparent, 32 x 11.6mm, conical bottom | 0.7ml PP Short Thread Micro-Vial, transparent, 32 x 11.6mm, flat bottom |
| R. vol. < 110µl | R. vol. < 4 µl | R. vol. < 80µl |
| 100 pcs. per PP-Box | 100 pcs. per PE Bag | |

3.7.1.2 PFAS Safe Guard PP Closures ND9,

with Silicone/Polypropylene and Silicone/Polyimide septa



| SV 09 2284 | SV 09 2285 | SV 09 2237 | SV 09 2238 | SV 09 1943 |
|---|---|--|---|--|
| PP Short Thread Cap ND9, transparent, 6mm centre hole | | PP Short Thread Cap ND9, blue, 6mm centre hole | | |
| Silicone white/ Polypropylene transparent | Silicone white/ Polypropylene transparent SLIT | Silicone white/ Polypropylene transparent | Silicone white/ Polypropylene transparent SLIT | Silicone white/ Polyimide orange, fluorine-free |
| 45° shore A | 45° shore A | 45° shore A | 45° shore A | 50° shore A |
| 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | |

3.7.1.3 PFAS Safe Guard 2in1 Kits – Short Thread vials and Closures

| KP 09 2242PFAS | | KP 09 2243PFAS | |
|---|--|---|---|
| 1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11.6mm, slightly concave shaped bottom (KG 09 0446) | PP Short Thread Cap ND9, blue, 6mm centre hole; Silicone white/ Polypropylene transparent, for PFAS analysis (SV 09 2237) | 1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11.6mm, slightly concave shaped bottom (KG 09 0446) | PP Short Thread Cap ND9, blue, 6mm centre hole; Silicone white/ Polypropylene transparent, for PFAS analysis, SLIT (SV 09 2238) |
| 100 Vials and 100 Closures per 2in1 Kit | | 100 Vials and 100 Closures per 2in1 Kit | |

| KP 09 2265PFAS | | KP 09 2266PFAS | |
|---|--|---|---|
| 1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11.6mm, slightly concave shaped bottom (KG 09 0446) | PP Short Thread Cap ND9, blue, 6mm centre hole; Silicone white/ Polypropylene transparent, for PFAS analysis (SV 09 2284) | 1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11.6mm, slightly concave shaped bottom (KG 09 0446) | PP Short Thread Cap ND9, blue, 6mm centre hole; Silicone white/ Polypropylene transparent, for PFAS analysis, SLIT (SV 09 2285) |
| 100 Vials and 100 Closures per 2in1 Kit | | 100 Vials and 100 Closures per 2in1 Kit | |



Further PFAS KIT 2in1 Kits combinations upon request available!

3. Short Thread Vials and Closures ND9

3.8 Certified Vial KITs (Short Thread Vials and Short Thread Seals ND9)

HPLC and GC certified Vial KITs:

Reliability and precision are crucial in analytical chemistry. This is why laboratories rely on high-quality vial kits that are specially certified for HPLC (High Performance Liquid Chromatography) and GC (Gas Chromatography). These certified vials and closures ensure that your samples can be analysed under optimal conditions.



3.8.1 HPLC and GC certified Vial Kits (Short Thread ND9)

What are HPLC and GC certified vial kits?

These kits consist vials and closures, that have been specially developed for use in HPLC and GC instruments. They are specially certified to meet high standards of purity, integrity and compatibility. The certification guarantees that the vials are free from contamination that could falsify measurement results.

Advantages of the certified vial kits:

- High purity: minimised contamination due to special manufacturing and quality controls.
- Reproducible results: Consistent quality ensures reliable and comparable measurement results.
- Compatibility: Perfect fit in common HPLC and GC devices.
- Various designs: Available in different sizes, materials and closure types to meet specific requirements.

The batch-specific test certificate with the HPLC and GC-Chromatograms can be handed out upon request.



KP 09 1499HPLC

1,5ml
Short Thread Vial,
32 x 11.6mm,
clear glass,
1st hydrol. class,
wide opening,
label + filling lines

9mm
UltraClean
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
55° shore A,
1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1514HPLC

1,5ml
Short Thread Vial,
32 x 11.6mm,
amber glass,
1st hydrol. class,
wide opening,
label + filling lines

9mm
UltraClean
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
55° shore A,
1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1963HPLC

Short Thread Vial
with integrated
0,2ml Micro-Insert,
32 x 11.6mm,
clear glass,
1. hydrol. class,
"BaseBond",
with
small micro-insert

9mm
UltraClean
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
55° shore A,
1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1964HPLC

Short Thread Vial
with integrated
0,2ml Micro-Insert,
32 x 11.6mm,
clear glass,
1. hydrol. class,
"BaseBond",
with
wide micro-insert

9mm
UltraClean
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
55° shore A,
1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1965HPLC

1.1ml
Microliter
Short Thread Vial ND9,
32 x 11.6mm,
clear glass,
1st hydrolytic class,
solid cone,
with shaped glass bottom

9mm
UltraClean
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
55° shore A,
1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1966HPLC

0,9ml
Total Mikroliter
Short Thread Vial
32 x 11.6mm,
clear glass,
1. hydrol. class

9mm
UltraClean
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
55° shore A,
1.0mm

100 Vials and 100 Closures per Certified Kit

3. Short Thread Vials and Closures ND9

3.8 Certified Vial KITs (Short Thread Vials and Short Thread Seals ND9)

LC/MS and GC/MS Certified Vial KITs:

Reliability and precision are crucial in analytical chemistry. This is why laboratories rely on high-quality vial kits that are specially certified for LCMS/GCMS (Liquid Chromatography-Mass Spectrometry) These certified vials and closures ensure that your samples can be analysed under optimal conditions.



3.8.2 LC/MS and GC/MS Certified Vial KITs (Short Thread Vials and Short Thread Seals ND9)

What are HPLC and GC certified vial kits?

These kits consist vials and closures, that have been specially developed for use in LCMS and GCMS instruments. They are specially certified to meet high standards of purity, integrity and compatibility. The certification guarantees that the vials are free from contamination that could falsify measurement results.

Advantages of the certified vial kits:

- High purity: minimised contamination due to special manufacturing and quality controls.
- Reproducible results: Consistent quality ensures reliable and comparable measurement results.
- Compatibility: Perfect fit in common LCMS and GCMS devices.
- Various designs: Available in different sizes, materials and closure types to meet specific requirements.

The batch-specific test certificate with the LCMS and GCMS Chromatograms can be handed out upon request.



KP 09 1967LCMS

1,5ml
Short Thread Vial,
32 x 11.6mm,
clear glass,
1st hydrol. class,
wide opening,
label + filling lines

9mm
EASYPIERCE
High Performance
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
40° shore A, 1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1968LCMS

1,5ml
Short Thread Vial,
32 x 11.6mm,
amber glass,
1st hydrol. class,
wide opening,
label + filling lines

9mm
EASYPIERCE
High Performance
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
40° shore A, 1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1969LCMS

Short Thread Vial
with integrated
0,2ml Micro-Insert,
32 x 11,6mm,
clear glass,
1. hydrol. class,
"Base Bonded",
with small micro-insert

9mm
EASYPIERCE
High Performance
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
40° shore A, 1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1970LCMS

Short Thread Vial
with integrated
0,3ml Micro-Insert,
32 x 11,6mm,
clear glass,
1. hydrol. class,
"Base Bonded",
with wide micro-insert

9mm
EASYPIERCE
High Performance
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
40° shore A, 1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1971LCMS

1.1ml
Microliter
Short Thread Vial ND9,
32 x 11.6mm,
clear glass,
1st hydrolytic class,
solid cone,
with shaped glass bottom

9mm
EASYPIERCE
High Performance
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
40° shore A, 1.0mm

100 Vials and 100 Closures per Certified Kit



KP 09 1972LCMS

0,9ml
Total Mikroliter
Short Thread Vial
32 x 11,6mm,
clear glass,
1. hydrol. class

9mm
EASYPIERCE
High Performance
PP Short Thread Cap,
blue, centre hole;
Silicone white/PTFE red,
40° shore A, 1.0mm

100 Vials and 100 Closures per Certified Kit

4. Screw Neck Vials and Closures ND10

Screw Neck Vials ND10 and Closures ND10 are suitable for autosamplers due to their precise 10 mm thread, which provides secure sealing and reliable handling. Their standardized geometry ensures compatibility with a wide range of automated systems.

Standard vials for GC and HPLC.

- Vials ND10 (screw thread 10-425) can be used on all common HPLC and GC autosamplers
- Vials NS10 with wide opening (inner neck diameter at the thread 6.25mm +/- tolerances)
- Vials ND10 require micro-inserts with a diameter of 6 mm
- All vials ND10 can also be offered as silanized versions



4.1 Screw Neck Vials ND10, wide opening, 10-425 thread and Mikroliter Vials ND10



| GW 10 0451 | GW 10 0452 | GW 10 1038 | GW 10 0453 | GW 10 0861 GW 10 0862 | GW 10 1319 GW 10 1320 |
|---|---|---|---|---|--|
| 1.5ml Screw Neck Vial, 10-425 Thread, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening | 1.5ml Screw Neck Vial, 10-425 Thread, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines | 1.5ml Screw Neck Vial, 10-425 Thread, 32 x 11.6mm, amber glass, 1st hydrol. Class, wide opening | 1.5ml Screw Neck Vial, 10-425 Thread, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, label + filling lines | 1.1ml Screw Neck Vial, 10-425 Thread, 32 x 11.6mm, clear glass, (Amber Glass) 1st hydrol. class | 1.1ml Screw Neck Vial, 10-425 Thread, 32 x 11.6mm, clear glass, (Amber Glass) 1st hydrol. clas |
| R. vol. < 120 µl | R. vol. < 120 µl | R. vol. < 120 µl | R. vol. < 120 µl | R. vol. < 15 µl | R. vol. < 15 µl |
| 100 pcs. per PP-Box | | | | | |

4.2 Micro-Inserts for Vials with wide opening

Special features of our micro insert ME 06 0232 with polymer spring.

- The geometry of the three spreader feet is specially designed so that the feet press against the inner walls of the vial when it is inserted into it, thus ensuring a centric fit and thus reliable sampling.
- The hardness of the polymer spring is specially adapted to ensure that there is sufficient elasticity for easy insertion, but that sufficient counter pressure is generated by the spring mechanism to ensure that the insert always presses against the septa and prevents the sample from leaking.



| ME 06 0218 | ME 06 0361 | ME 06 0362 | ME 06 0232 | ME 06 1174 |
|---|--|---|--|--|
| 0.25ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 15mm top | 0.3ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 12mm top | 0.35ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, flat bottom SILANIZED ME 06 0362s | 0.25ml Micro-Insert, 29 x 5.7mm, clear glass, 1st hydrol. class, with assembled plastic spring SILANIZED ME 06 0232s | 0.25ml PE Micro-Insert, 29 x 6mm, clear, with integrated plastic spring |
| R. vol. < 4 µl | R. vol. < 4 µl | R. vol. < 8 µl | R. vol. < 4 µl | R. vol. < 8 µl |
| 10 x 100 pcs. per PP-Box | | | | 100 pcs. per PE-Bag |

R. vol. = Residual Volume (µl)

4. Screw Neck Vials and Closures ND10

4.3 PP Screw Seals ND10

- Our 10-425 PP Screw Seals can be offered in a variety of septa
- In standard assembled and therefore available from stock, the seals are available as follows
- On request the Seals ND10 can be delivered with further septa materials or with a different cap color



| Art. No. | SV 10 0461 | SV 10 0462 | SV 10 0463 | SV 10 0464 | SV 10 0502 |
|---------------------|---|-----------------------------|-------------------------------------|---------------------------------------|---|
| Cap: | PP Srew Cap, black, 7mm hole | | | | PP SC, black, closed top |
| Septa: | Natural Rubber red- orange/TEF transparent | Silicone white/ PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/ PTFE blue, slit | Natural Rubber red- orange/TEF transparent |
| Hardness | 60° shore A | 45° shore A | 45° shore A | 55° shore A | 60° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,0mm | 1,5mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | |

4.4 Septa 10mm for Screw Caps ND10

- Please note that the diameter of the septa is designed to match our cap design. We cannot guarantee an optimal press-fit of the septa in caps of other manufacturers!
- Further septa made of other materials such as Viton, Butyl/PTFE etc. are available on request!



| Art. No. | SE 10 0098 | SE 10 0496 | SE 10 0497 | SE 10 0498 | SE 10 0499 |
|-----------------------|------------------|---|-----------------------------|-------------------------------------|------------------------------------|
| Septa: | PTFE virginal | Natural Rubber red- orange/TEF transparent | Silicone white /PTFE red | PTFE red/Silicone white/PTFE red | Silicone white /PTFE blue, slit |
| Durometer: | 53° shore A | 60° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness: | 0,20mm | 1,0mm | 1,3mm | 1,0mm | 1,5mm |
| 1.000 pcs. per PE-Bag | | | | | |

4.5 PP Screw Caps ND10

- High-quality PP Screw Caps with thread 10-425 are available as standard caps.
- Available with hole and as closed top version, black
- Other cap colors are available on request



| Art. No. | SK 10 0500 | SK 10 0501 |
|-----------------------|-------------------------------------|---------------------------------------|
| Cap: | PP Screw Cap, black, 7mm hole | PP Screw Cap, black, closed top |
| 1.000 pcs. per PE-Bag | | |



Upon request available as 2in1 Kits!

5. Crimp Neck Vials and Closures ND11

Crimp Neck Vials ND11 and Closures ND11 are commonly used on autosamplers because the crimp finish ensures a tight, secure seal for sensitive samples. Their standardized 11 mm design guarantees reliable compatibility with automated systems.

Standard vials for GC and HPLC.

- Crimp Neck vials ND11 can be used on all common HPLC and GC autosamplers
- Crimp Neck vials ND11 with wide opening
- Crimp Neck vials ND11 require micro-inserts with a diameter of 6mm
- All Crimp Neck vials ND11 vials can also be offered as silanized versions
- 2in1 Kit combinations upon request available



5.1 Crimp Neck Vials ND11, wide opening



5.2 Micro-Inserts for Vials with wide opening



| RR 11 0176 | RR 11 0198 | RR 11 0895 | RR 11 0199 | ME 06 0218 | ME 06 0361 | ME 06 0362 | ME 06 0232 |
|---|--|---|--|---|--|--|---|
| 1.5ml Crimp Neck Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening | 1.5ml Crimp Neck Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening, label + filling lines | 1.5ml Crimp Neck Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, wide opening | 1.5ml Crimp Neck Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, wide opening, label + filling lines | 0.25ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 15mm top | 0.3ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 12mm top | 0.35ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol.class, flat bottom | 0.25ml Micro-Insert, 29 x 5.7mm, clear glass, 1st hydrol. class, with assembled plastic spring |
| SILANIZED RR 11 0176s | SILANIZED RR 11 0198s | SILANIZED RR 11 0895s | SILANIZED RR 11 0199s | SILANIZED ME 06 0218s | SILANIZED ME 06 0361s | SLANIZED ME 06 0362s | SILANIZED ME 06 0232s |
| R. vol. < 100 µl | R. vol. < 100 µl | R. vol. < 100 µl | R. vol. < 100 µl | R. vol. < 4 µl | R. vol. < 4 µl | R. vol. < 8 µl | R. vol. < 4 µl |
| 100 pcs. per PP-Box | | | | | | | |

5.1 Crimp Neck Vials ND11 – BaseBond Micro Vials (Cont.)

BaseBond Vials



| RR 11 0680 | RR 11 0681 | RR 11 2056 | RR 11 2057 | RR 11 1353 | RR 11 1354 | RR 11 2048 | RR 11 2049 |
|--|--|--|--|--|--|---|---|
| Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, | Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, | Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch, with small micro-insert "BaseBond" | Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch, with small micro-insert "BaseBond" | Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, | Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, | Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch, with wide micro-insert "BaseBond" | Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch, with wide micro-insert "BaseBond" |
| with small micro-insert "BaseBond" | with small micro-insert "BaseBond" | | | with wide micro-insert "BaseBond" | with wide micro-insert "BaseBond" | | |
| R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 3 µl |
| 100 pcs. per PP-Box | | | | | | | |

5. Crimp Neck Vials and Closures ND11






5.1 Crimp Neck Vials ND11 – Other Micro Vials (Cont.)

| | | | | | | TopBond | TopBond |
|--|--|--|--|--|---|--|--|
|  |  |  |  |  |  |  |  |
| RR 11 0294 RR 11 1682 | RR 11 1200 RR 11 1316 | SR 11 1123 SR 11 1408 | RR 11 0366 | RR 11 0367 | RR 11 0872 RR 11 0873 | RR 11 0322 | RR 11 0323 |
| 1.1ml Microliter-Vial, Crimp Neck 32 x 11.6mm, clear glass, (amber glass) 1st hydrol. class SILANIZED RR 11 0294s | 1.1ml Microliter-Vial, Crimp Neck 32 x 11.6mm, clear glass, (amber glass) 1st hydrol. class SILANIZED RR 11 1200s | 0.9ml Total Microliter Snap/Crimp Ring Vial 32 x 11.6mm, clear glass, 1st hydrol.class | 0.9ml Micro-Vial, 32 x 10mm, clear glass, 1st hydrol. class, conical | 1,1ml Micro-Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, conical | 1,1ml Microliter Crimp Neck Vial 32 x 11.6mm clear glass, (amber glass) 1st hydrol. Class, with rounded glass base | Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch, with small micro-insert „TopBond“ | Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch, with small micro-insert "TopBond" |
| R. vol. < 15 µl | R. vol. < 15 µl | R. vol. < 1 µl | R. vol. < 2 µl | R. vol. < 4 µl | R. vol. < 15 µl | R. vol. < 1 µl | R. vol. < 1 µl |
| 100 pcs. per PP-Box | | | 100 pcs. per PE-Bag | | 100 pcs. per PP-Box | | |

5.3 Aluminum Crimp Seals ND11

5.3.1 Natural Rubber/TEF Seals

- Perfect for multiple injections due to its reclosable properties
- Temperature resistant from -40° C to 120° C
- Used in GC and HPLC

| | | | | | | | | | |
|---|---|---|--|---|--|---|--|---|--|
|  | |  | |  | |  | |  | |
| Art. No. | BV 11 1023 | BV 11 2212 | | BV 11 2213 | | BV 11 2201 | | BV 11 2214 | |
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, green lacquered, 5,5mm hole | | Aluminum Crimp Cap, red lacquered, 5,5mm hole | | Aluminum Crimp Cap, blue lacquered, 5,5mm hole | | Aluminum Crimp Cap, gold lacquered, 5,5mm hole | |
| Septa: | Natural Rubber red-orange/TEF transparent, 60° shore A, 1,0mm | | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | | |

5.3.2 Natural Rubber/Butyl/TEF Seals

- Three-layer, so-called sandwich septa made of natural rubber/butyl/TEF combines the excellent physical properties of natural rubber (resealing properties) with the excellent chemical properties of synthetic butyl (purity)
- Ideal for multiple injections, easier to penetrate than natural rubber/TEF seals

| | | | | |
|--|---|--|--|---|
|  | | | | |
| Art. No. | BV 11 0336 | BV 11 0503 | BV 11 0504 | BV 11 0506 |
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, green lacquered, 5,5mm hole | Aluminum Crimp Cap, red lacquered, 5,5mm hole | Aluminum Crimp Cap, gold lacquered, 5,5mm hole |
| Septa: | Natural Rubber red-orange/Butyl/TEF transparent, 45° shore A, 1,0mm | | | |
| 100 pcs. per PE-Bag | | | | |

5. Crimp Neck Vials and Closures ND11

5.3.3 RedRubber/PTFE Seals

- New synthetic rubber comparable to silicone in terms of purity
- Temperature resistance from -40° C to 150° C
- Preferably recommended for single use injections due to less good reclosing properties
- Applications in GC and HPLC



| Art. No. | BV 11 0789 | BV 11 0790 | BV 11 0791 | BV 11 0792 | BV 11 0793 |
|---------------------|---|---|---|--|--|
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, green lacquered, 5,5mm hole | Aluminum Crimp Cap, red lacquered, 5,5mm hole | Aluminum Crimp Cap, blue lacquered, 5,5mm hole | Aluminum Crimp Cap, gold lacquered, 5,5mm hole |
| Septa: | RedRubber/PTFE beige, 45° shore A, 1mm (tested instrument manufacturer quality) | | | | |
| 100 pcs. per PE-Bag | | | | | |

5.3.4 Silicone white/PTFE red Seals

- Is the purest synthetic elastomer and is therefore used for critical analyses
- Temperature resistance from -60° C to 200° C
- Preferably recommended for single use injections due to less good reclosing properties
- Application in GC, HPLC and headspace analysis



| Art. No. | BV 11 0172 | BV 11 0794 | BV 11 0795 | BV 11 0796 | BV 11 0797 |
|---------------------|---|---|---|--|--|
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, green lacquered, 5,5mm hole | Aluminum Crimp Cap, red lacquered, 5,5mm hole | Aluminum Crimp Cap, blue lacquered, 5,5mm hole | Aluminum Crimp Cap, gold lacquered, 5,5mm hole |
| Septa: | Silicone white/PTFE red, 45° shore A, 1,3mm | | | | |
| 100 pcs. per PE-Bag | | | | | |

5.3.5 Other Silicone/PTFE Seals

- The purest synthetic elastomer and therefore used for critical analyses
- Silicone septa coated with PTFE on both sides for low particle formation
- Slit septa in HPLC as penetration aid for blunt needles to create a valve effect in case of multiple injections
- Temperature resistance from -60° C to 200° C



| Art. No. | BV 11 0643 | BV 11 0138 | BV 11 0136 | BV 11 1417 |
|---------------------|---|----------------------------------|--------------------------------------|---|
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | | | |
| Septa: | Silicone cream/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit | ZeroPEAK Silicon natur/PTFE beige |
| Hardness: | 55° shore A | 45° shore A | 55° shore A | 38° shore A |
| Thickness: | 1,5mm | 1,0mm | 1,5mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | |

5.3.6 Butyl/PTFE Seals



| Art. No. | BV 11 0130 | BV 11 0382 |
|---------------------|---|---------------------------------|
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | |
| Septa: | Butyl cream/PTFE grey | PTFE grey/Butyl cream/PTFE grey |
| Hardness: | 55° shore A | 55° shore A |
| Thickness: | 1,3mm | 1,0mm |
| 100 pcs. per PE-Bag | | |

5. Crimp Neck Vials and Closures ND11

5.3.7 High Temperature Seals

- Total phthalate free closure system (TPF closure); elastomer and halogen free septa
- Viton is resistant to a large number of corrosive organic substances; it has a high thermal and chemical resistance; main field of application in the petrochemical industry



| Art. No. | BV 11 0604 | BV 11 0875 | BV 11 0918 | BV 11 0135 | BV 11 0134 |
|---------------------|--|---|--|--|---|
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole, with roll groove | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, clear lacquered, 5,5mm hole | Aluminum Crimp Cap, clear lacquered, 5,5mm hole |
| Septa: | PTFE virginal | PTFE virginal (add. TPF O-ring) | Silicone white/Aluminum foil silver | Viton 1A | Viton 1A |
| Hardness: | 53° shore A | 53° shore A | 50° shore A | 70° shore A | 70° shore A |
| Thickness: | 0,25mm | 0,25mm | 1,3mm | 1,0mm | 1,5mm |
| Applicable up to: | −200 °C bis +260 °C | | −40 °C bis +220 °C | −40 °C bis +240 °C | |
| 100 pcs. per PE-Bag | | | | | |

5.3.8 Magnetic Crimp Seals ND11 (for CTC PAL + Thermo Scientific TriPlus Autosampler)



| Art. No. | BV 11 0798 | BV 11 0715 |
|---------------------|--|----------------------------------|
| Cap: | Magnetic Crimp Cap, silver lacquered, 5mm hole | |
| Septa: | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red |
| Hardness: | 45° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,0mm |
| 100 pcs. per PE-Bag | | |

5.3.9 Trace analysis and TPF closure systems

Total Phthalat Free (TPF) Seals with assembled aluminum liner (BV 11 0979)

- Septa material free of any elastomers and halogens; therefore no contamination of the sample by plasticizers, Silicone or Butyl rubbers and PTFE/FEP/ TEF materials
- Recommended for GC/MS and LC/MS applications
- The additional ring which is assembled above the aluminum liner achieves an excellent tightness and inertness of the complete combination seal
- Suitable for storing of standards or reactive substances which would normally corrode the septum material



| Art. No. | BV 11 0979 | BV 11 0980 |
|--|---|--|
| Cap: | Aluminum Crimp Cap, clear lacquered, 5,5mm hole, with roll groove | |
| Septa: | Aluminum Septa (additional sealing by TPF O-ring) | PTFE virginal, 0,25mm (additional sealing by TPF O-ring) |
| Hardness: | | 53° shore A |
| Thickness: | 0,1mm | 0,25mm |
| Packed per 100 pieces in plasticizer-free glass vial | | |

Application areas:

- Analytic of elastomers und plastomers
- Phthalate analysis
- Analytic of fluorinated, halogenated organic compounds
- VOC (volatile organic compounds) analysis
- Analytic of polymerisation catalysts
- Analytic of silicones und silicates



5. Crimp Neck Vials and Closures ND11

5.4 Septa 11mm Aluminum Crimp Seals ND11 (Cont.)

- Please note that the diameter of the septa is designed to match our cap design. We cannot guarantee an optimal press-fit of the septa in caps of other manufacturers.
- Further septa made of other materials are available upon request.



| Art. No. | SE 11 0120 | SE 11 0693 | SE 11 0121 | SE 11 0083 | SE 11 0091 | SE 11 0827 |
|-----------------------|-------------------------|-------------------------|----------------------------------|---|--------------|--------------------------------------|
| Septa: | Silicone white/PTFE red | Silicone cream/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit | Viton, black | Silicone white/Aluminum foil, silver |
| Hardness: | 45° shore A | 55° shore A | 45° shore A | 55° shore A | 70° shore A | 50° shore A |
| Thickness: | 1,3mm | 1,5mm | 1,0mm | 1,5mm | 1,0mm | 1,3mm |
| 1.000 pcs. per PE-Bag | | | | | | |



| Art. No. | SE 11 0099 | SE 11 0080 | SE 11 0788 | SE 11 0081 | SE 11 0381 |
|-----------------------|---------------|---|----------------------|-----------------------|---------------------------------|
| Septa: | PTFE virginal | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | Butyl cream/PTFE grey | PTFE grey/Butyl cream/PTFE grey |
| Hardness: | 53° shore A | 60° shore A | 45° shore A | 55° shore A | 55° shore A |
| Thickness: | 0,20mm | 1,0mm | 1,0mm | 1,3mm | 1,3mm |
| 1.000 pcs. per PE-Bag | | | | | |

5.5 Aluminum Crimp Caps ND11

- Aluminium crimp caps are available in clear lacquer, green lacquer, red lacquer, blue lacquer and gold lacquer as standard
- Other colours can be supplied on request



| Art. No. | BK 11 0123 | BK 11 0126 | BK 11 0127 | BK 11 0125 | BK 11 0128 |
|-----------------------|--|--|--|---|---|
| Cap: | 11mm Aluminum Crimp Cap, clear lacquered, 5,5mm hole | 11mm Aluminum Crimp Cap, green lacquered, 5,5mm hole | 11mm Aluminum Crimp Cap, red lacquered, 5,5mm hole | 11mm Aluminum Crimp Cap, blue lacquered, 5,5mm hole | 11mm Aluminum Crimp Cap, gold lacquered, 5,5mm hole |
| 1.000 pcs. per PE-Bag | | | | | |

5.6 Special 2in1 Kits Aluminum Crimp Seals ND11

- Each combination of a crimp neck vial ND11 is now available with any 11mm crimp cap listed in the catalogue as a practical 2in1 kit!

100 Vials and 100 Seals per Box



5.7 Crimp Neck Vials ND11 with pre-crimped Aluminum Seals ND11

- Pre-crimped vials reduce the risk of contamination of vials in laboratories. Furthermore special applications could require a pre-crimped vial (e.g. in the tobacco industry).
- Pre-crimped vials are available with any of the crimp/snap neck vials and any seal of your choice.

6. Snap Ring Vials and Closures ND11

Snap Ring Vials ND11 and Closures ND11 are suitable for autosamplers because their snap cap design allows fast and easy sealing without special tools. The standardized 11 mm format ensures reliable compatibility with automated systems.

The Universal Autosampler Vial

- These vials are designed for use with nearly all autosamplers, including systems with robotic handling.
- They can also be sealed with a standard 11 mm aluminium crimp cap, as the two snap ring lips match the height of a crimp neck.



6.1 Snap Ring Vials ND11, wide opening



| SR 11 0200 | SR 11 0201 | SR 11 1037 | SR 11 0202 | ME 06 0218 | ME 06 0361 | ME 06 0362 | ME 06 0232 |
|---|---|---|---|---|--|--|--|
| 1,5ml Snap Ring Vial,, 32 x 11,6mm, clear glass, 1st hydrol. class, wide opening | 1,5ml Snap Ring Vial,, 32 x 11,6mm, clear glass, 1st hydrol. class, wide Opening, label + filling lines | 1,5ml Snap Ring Vial,, 32 x 11,6mm, amber glass, 1st hydrol. class, wide opening | 1,5ml Snap Ring Vial,, 32 x 11,6mm, amber glass, 1st hydrol. class, wide Opening, label + filling lines | 0,25ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 15mm top | 0,3ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, 12mm top | 0,35ml Micro-Insert, 31 x 6mm, clear glass, 1st hydrol. class, flat bottom | 0,25ml Micro-Insert, 29 x 5,7mm, clear glass, 1st hydrol. class, with assembled plastic spring |
| SILANIZED SR 11 0200s | SILANIZED SR 11 0201s | SILANIZED SR 11 1037s | SILANIZED SR 11 0202s | SILANIZED ME 06 0218s | SILANIZED ME 06 0361s | SILANIZED ME 06 0362s | SILANIZED ME 06 0232s |
| R. vol. < 100 µl | R. vol. < 100 µl | R. vol. < 100 µl | | R. vol. < 4 µl | R. vol. < 4 µl | R. vol. < 8 µl | R. vol. < 4 µl |
| 100 pcs. per PP-Box | | | | 10 x 100 pcs. per PP-Box | | | |

6.1.3 Micro-Inserts for Vials with wide opening



6.1.2 Snap Ring Mikroliter Vials ND11

BaseBond Vials

Microliter Vials



| SR 11 0684 SR 11 0685 | SR 11 2054 SR 11 2055 | SR 11 1560 SR 11 1561 | SR 11 2052 SR 11 2053 | SR 11 1312 SR 11 1322 | SR 11 0857 SR 11 0858 | SR 11 1092 | SR 11 0474 | SR 11 0856 |
|---|--|---|---|--|--|--|---|---|
| Snap Ring Vial with integrated 0,2ml Micro-Insert, 32 x 11,6mm, clear glass, (amber glass) 1.hydrol. class, | Snap Ring Vial with integrated 0,2ml Micro-Insert, 32 x 11,6mm, clear glass, (amber glass) 1.hydrol. class, writing patch and filling lines, with small micro-insert "Base Bond" | Snap Ring Vial with integrated 0,3ml Micro-Insert, 32 x 11,6mm, clear glass, (amber glass) 1.hydrol. class, | Snap Ring Vial with integrated 0,3ml Micro-Insert, 32 x 11,6mm, clear glass, (amber glass) 1.hydrol. class, writing patch and filling lines, with wide micro-insert "Base Bond" | 1,1ml Microliter Snap Ring Vial 32 x 11,6mm clear glass, (amber glass) 1.hydrol. class, | 1,1ml Microliter Snap Ring Vial 32 x 11,6mm clear glass, (amber glass) 1.hydrol. class, | 0,3ml PP Snap Ring Micro-Vial, transparent, 32 x 11,6mm | CoreClose TPX Snap Ring Vial, clear, 32 x 11,6mm, with integrated 0.2ml Glass Micro-Insert, 15mm top | 0,7ml PP Snap Ring Micro-Vial, transparent, 32x11,6mm |
| with small micro-insert "Base Bond" | with small micro-insert "Base Bond" | with wide micro-insert "Base Bond" | with wide micro-insert "Base Bond" | with solid glass bottom | with rounded glass bottom | | | |
| R. vol. < 1 µl | R. vol. < 1 µl | R. vol. < 3 µl | R. vol. < 3 µl | R. vol. < 8 µl | R. vol. < 15 µl | R. vol. < 4 µl | R. vol. < 4 µl | R. vol. < 25 µl |
| 100 pcs. per PP-Box | | | | | | 100 per PE-Bag | | |

6.2 PE Snap Ring Seals ND11

6.2.1 PE Snap Ring Seals ND11, transparent, with 6mm hole



| Art. No. | SN 11 0518 | SN 11 0800 | SN 11 0171 | SN 11 0168 | SN 11 0170 | SN 11 0911 | SC 11 1194 |
|---------------------|---|----------------------|----------------------------|-------------------------|----------------------------------|---|-----------------------------------|
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | RedRubber/PTFE transparent | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit | thinned penetration area, no hole |
| Hardness: | 60° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 55° shore A | |
| Thickness: | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | |
| 100 pcs. per PE-Bag | | | | | | | |

6.2.2 PE Snap Ring Seals ND11, blue, with 6mm hole



| Art. No. | SN 11 0519 | SN 11 0801 | SN 11 0706 | SN 11 0520 | SN 11 0521 | SN 11 0853 | SC 11 1169 |
|---------------------|---|----------------------|----------------------------|-------------------------|----------------------------------|---|-----------------------------------|
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | RedRubber/PTFE transparent | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit | thinned penetration area, no hole |
| Hardness: | 60° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 55° shore A | |
| Thickness: | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | |
| 100 pcs. per PE-Bag | | | | | | | |

6.2.3 PE Snap Ring Seals ND11, red, with 6mm hole



| Art. No. | SN 11 2182 | SN 11 2334 | SN 11 2157 | SN 11 2021 | SN 11 2177 | SN 11 1647 |
|---------------------|---|----------------------|----------------------------|-------------------------|----------------------------------|---|
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | RedRubber/PTFE transparent | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit |
| Hardness: | 60° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness: | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | |

6.2.4 PE Snap Ring Seals ND11, green, with 6mm hole



| Art. No. | SN 11 2336 | SN 11 2014 | SN 11 1934 | SN 11 2073 | SN 11 2335 | SN 11 1649 |
|---------------------|---|----------------------|----------------------------|-------------------------|----------------------------------|---|
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | RedRubber/PTFE transparent | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit |
| Hardness: | 60° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness: | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | |

6.2.5 PE Snap Ring Seals ND11, yellow, with 6mm hole



| Art. No. | SN 11 2013 | SN 11 2015 | SN 11 2237 | SN 11 1650 | SN 11 2161 | SN 11 1648 |
|---------------------|---|----------------------|----------------------------|-------------------------|----------------------------------|---|
| Septa: | Natural Rubber red-orange/TEF transparent | RedRubber/PTFE beige | RedRubber/PTFE transparent | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, cross-slit |
| Hardness: | 60° shore A | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness: | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | | | | |

6. Snap Ring Vials and Closures ND11

NEW

6.3 PFAS Safe Guard Vials, Closures and 2in1 Kits ND11

PFAS stands for per- and polyfluoroalkyl substances, and are colloquially known as “forever chemicals.” They are a group of man-made chemicals that have been widely used in various industrial and consumer products since the 1940’s. PFAS are known for their strong chemical bonds, which make them resistant to heat, water, and oil. This property has made them popular for use in a wide range of applications, including firefighting foams, non-stick cookware (such as Teflon), waterproof fabrics, food packaging, and many other household and industrial products.

PFAS CAN BE FOUND IN:

- Environmental monitoring
- Product testing
- Industrial quality assurance
- Commercial household cleaning products
- Food packaging

Goals of the EPA are to ensure science-based decision making to identify which PFAS may pose human health and ecological risks and develop tests to measure, remove and destroy them.



6.3.1 PFAS Safe Guard Vials and Closures ND11

6.3.1.1 PFAS Safe Guard PP Vials ND11



| SR 11 1092 | SR 11 0856 |
|---|---|
| 0.3ml PP Snap Ring Micro-Vial, 32 x 11.6mm, transparent | 0.7ml PP Snap Ring Micro-Vial, 32 x 11.6mm, transparent |
| R. vol. < 4 µl | R. vol. < 25 µl |
| 100 pcs. per PE-Bag | |

6.3.1.2 PFAS Safe Guard PP Snap Ring Closures ND11 with Silicone/Polypropylene septa



| SN 11 2239 | SN 11 2240 | SN 11 2332 | SN 11 2333 |
|---|---|--|---|
| PE Snap Ring Cap ND11 blue, 6mm centre hole | | PE Snap Ring Cap ND11 blue, 6mm centre hole | |
| Silicone white/ Polypropylene transparent | Silicone white/ Polypropylene transparent, SLIT | Silicone white/ Polypropylene transparent, | Silicone white/ Polypropylene transparent, CROSS-SLIT |
| 45° shore A | 45° shore A | 45° shore A | 45° shore A |
| 1,0mm | 1,0mm | 1,0mm | 1,0mm |
| 100 pcs. per PE-Bag | | | |

6.3.1.3 PFAS Safe Guard 2in1 Kits – Snap Ring Vials and Closures

| KP 11 2267PFAS | |
|--|--|
| 0.3ml PP Snap Ring Micro-Vial, 32 x 11.6mm, transparent | PFAS Safe Guard PE snap ring cap, blue, with hole, silicon white/transparent polypropylene, for PFAS analysis |
| (SR 11 1092) | (SN 11 2239) |
| 100 Vials and 100 Closures per 2in1 Kit | |

| KP 11 2268PFAS | |
|--|--|
| 0.3ml PP Snap Ring Micro-Vial, 32 x 11.6mm, transparent | PFAS Safe Guard PE snap ring cap, blue, with hole, silicon white/transparent polypropylene, for PFAS analysis, CROSS-SLIT |
| (SR 11 1092) | (SN 11 2240) |
| 100 Vials and 100 Closures per 2in1 Kit | |

| KP 11 2269PFAS | |
|--|--|
| 0.7ml PP Snap Ring Micro-Vial, 32 x 11.6mm, transparent | PFAS Safe Guard PE snap ring cap, blue, with hole, silicon white/transparent polypropylene, for PFAS analysis |
| (SR 11 0856) | (SN 11 2239) |
| 100 Vials and 100 Closures per 2in1 Kit | |

| KP 11 2270PFAS | |
|--|--|
| 0.7ml PP Snap Ring Micro-Vial, 32 x 11.6mm, transparent | PFAS Safe Guard PE snap ring cap, blue, with hole, silicon white/transparent polypropylene, for PFAS analysis, CROSS-SLIT |
| (SR 11 0856) | (SN 11 2240) |
| 100 Vials and 100 Closures per 2in1 Kit | |



Further PFAS KIT 2in1 Kits combinations upon request available!

7. Screw Neck ND13 and Closures ND13

Screw Neck Vials ND13 and Closures ND13 are used on autosamplers because their 13 mm thread ensures secure sealing and reliable sample integrity. Their standardized dimensions allow consistent compatibility with automated systems.

- Wide opening allows easy filling with viscous materials
- With closed screw caps ND13 ideal for storage
- Each vial and cap combination is now available as a practical 2in1 kit!!



7.1 Screw Neck Vials ND13 and appropriate Micro-Inserts

| GW 13 0454 | GW 13 0456 | GW 13 0455 | GW 13 0457 | GW 13 1283 | ME 13 0458 | FE 13 0459 |
|--|---|--|---|---|--|--|
| 4ml Screw Neck Vial, 45 x 14.7mm, clear glass, 1st hydrol. class | 4ml Screw Neck Vial, 45 x 14.7mm, clear glass, 1st hydrol. class, label + filling lines | 4ml Screw Neck Vial, 45 x 14.7mm, amber glass, 1st hydrol. class | 4ml Screw Neck Vial, 45 x 14.7mm, amber glass, 1st hydrol. class, label + filling lines | 3,5ml Mikroliter- Screw Neck Vial, 45 x 14.7mm, clear glass, 1st hydrol. class | 0,3ml MicroInsert, 40 x 6mm, clear glass, 1st hydrol. class, 15mm top Metal Spring required! | Spring 50 x 7.5mm for Micro-Insert ME 13 0458 |
| R. vol. < 400 µl | R. vol. < 400 µl | R. vol. < 400 µl | R. vol. < 400 µl | R. vol. < 15 µl | R. vol. < 9 µl | |
| 100 pcs. per PP-Box | | | | | 10 x100 pieces | 10 x100 pieces |

7.2 PP Screw Seals ND13, black with hole

| Art. No. | SV 13 0476 | SV 13 0477 | SV 13 0487 | SV 13 0806 | SV 13 0478 | SV 13 0479 |
|---------------------|--|-----------------------------|-------------------------|-----------------------------|--|---------------------------------------|
| Cap: | Polypropylene Screw Cap, black, 8.5mm centre hole | | | | | |
| Septa: | Natural Rubber red orange/TEF transparent | Silicone white/ PTFE red | Butyl red/ PTFE grey | Silicone cream/ PTFE red | PTFE red/ Silicone white/ PTFE red | Silicone white/ PTFE blue, slit |
| Hardness | 60° shore A | 45° shore A | 55° shore A | 55° shore A | 45° shore A | 55° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,3mm | 1,5mm | 1,0mm | 1,5mm |
| 100 pcs. per PE-Bag | | | | | | |

7.3 PP Screw Seals ND13, black, closed top

| Art. No. | SV 13 0488 | SV 13 0489 | SV 13 0805 |
|---------------------|--|---------------------|-------------------------|
| Cap: | Polypropylene Screw Cap, black, closed top | | |
| Septa: | Natural Rubber red-orange/TEF transparent | Butyl red/PTFE grey | Silicone cream/PTFE red |
| Hardness | 60° shore A | 55° shore A | 55° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,5mm |
| 100 pcs. per PE-Bag | | | |

7. Screw Neck ND13

7.4 Septa 12mm



| Art. No. | SE 12 0100 | SE 12 0481 | SE 12 0482 | SE 12 0485 | SE 12 0486 | SE 12 0460 |
|--------------------------|-------------------------------------|---|--------------------------|----------------------------|-------------------------------------|--------------------------------------|
| Septa | PTFE virginal (only unassembled) | Natural Rubber red-orange/TEF transparent | Butyl cream/PTFE grey | Silicone white/PTFE red | PTFE red/Silicone white/PTFE red | Silicone white/PTFE blue, slit |
| Hardness | 53° shore A | 60° shore A | 55° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness | 0,25mm | 1,3mm | 1,3mm | 1,3mm | 1,0mm | 1,5mm |
| 1.000 pcs. per PE-Beutel | | | | | | |

7.5 PP Screw Caps ND13



| Art. No. | SK 13 0483 | SK 13 0484 | SK 13 0803 | SK 13 0804 |
|-----------------------|---|--|---|--|
| Cap | 13mm Polypropylene Screw Cap , black, 8.5mm centre hole | 13mm Polypropylene Screw Cap , black, closed top | 13mm Polypropylene Screw Cap , white, 8.5mm centre hole | 13mm Polypropylene Screw Cap , white, closed top |
| 1.000 pcs. per PE-Bag | | | | |

7.6 Special 2in1 Kits Screw Neck ND13

- Each combination of a screw thread vial ND13 is now available with any ND13 screw cap listed in the catalogue as a practical 2in1 kit!

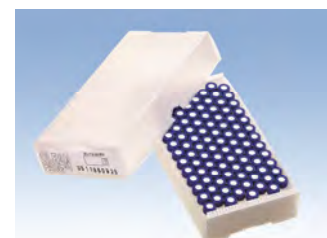
100 Vials and 100 Seals per Box



7.7 Screw Thread Vials ND13, with pre-assembled screw cap ND13

More and more customers wish to obtain vials which are already crimped or screwed with a seal of their choice. For example the tobacco industry analyses the smoke of a cigarette which is injected into an already crimped vial. Also a lot of EPA Vials are bought with the appropriate closure already screwed on top of the vial.

Chroma Globe GmbH can provide any type of pre-sealed vials and closures.



8. Screw Neck ND15

- Screw Neck Vials for storage purposes made out of 1st hydrol. class glass.
- For sample volumes from 800 µl to 12000 µl
- Wide opening for safe filling
- Seals available with many different septa materials



8.1 Screw Neck Vials ND15



| GW 15 0636 | GW 15 0831 | GW 15 0637 | GW 15 0876 |
|---|---|--|--|
| 8ml Screw Neck Vial, 15-425, 61 x 16.6mm, clear glass, 1st hydrol. class | 8ml Screw Neck Vial, 15-425, 61 x 16.6mm, amber glass, 1st hydrol. class | 12ml Screw Neck Vial, 15-425, 66 x 18.5mm, clear glass, 1st hydrol. class | 12ml Screw Neck Vial, 15-425, 66 x 18.5mm, amber glass, 1st hydrol. class |
| R. vol. 800 µl | R. vol. 800 µl | R. vol. 800 µl | R. vol. 800 µl |

100 pcs. per Box

8.2 PP Screw Seals ND15, black, closed top

- On the sample side, the aluminium foil with its outstanding chemical properties protects the sample, the soft inner core of PE foam provides the elasticity in the cap
- Our PP Screw Cap can be combined with any of the septa listed below



| Art. No. | SV 15 0594 | SV 15 0638 | SV 15 0884 | SV 15 0878 | SV 15 1327 |
|------------|---|---------------------|-----------------|-------------------------------------|-----------------|
| Cap: | PP Screw Cap, black, closed top | | | | |
| Septa: | Natural Rubber red/orange/TEF transparent | Butyl red/PTFE grey | Viton 1A, black | Silicone white/Aluminum foil silver | Butyl dark grey |
| Hardness | 60° shore A | 55° shore A | 70° shore A | 50° shore A | 48° shore A |
| Thickness: | 1,3mm | 1,6mm | 1,0mm | 1,3mm | 2mm |

100 pcs. per PE-Bag

8.3 Septa 14mm and PP Screw Seals ND15



| Art. No. | SE 14 0883 | SE 14 0882 | SE 14 0881 | SE 14 0879 | SE 14 1326 | SK 15 0747 | SK 15 0746 |
|--------------|---------------------------------|-----------------|---------------------|-------------------------------------|-----------------|---|--|
| Septa / Caps | PTFE virginal, both sides plain | Viton 1A, black | Butyl red/PTFE grey | Silicone white/Aluminum foil silver | Butyl dark grey | PP Screw Cap 15-425, black, with 9mm hole | PP Screw Cap 15-425, black, closed top |
| Hardness | 53° shore D | 70° shore A | 55° shore A | 50° shore A | 48° shore A | | |
| Thickness: | 0,25mm | 1,0mm | 1,6mm | 1,3mm | 2mm | | |

1.000 pcs. per PE-Bag

9. Shell Vials 1ml, 2ml and 4ml and appropriate Micro-Inserts

- A convenient to use and inexpensive bottle/cap combination.
- Star-shaped diaphragm allows easy penetration of the PE stopper.
- Recommended for use in HPLC.
- Shell Vials with the corresponding stoppers can also be supplied as a 2in1 KIT



9.1 Shell Vials 1ml and appropriate Micro-Insert



FK 08 0562

1ml Shell Vial,
35 x 7.8mm,
clear glass;
6mm PE Plug, transparent



FK 08 0563

1ml Shell Vial,
40 x 8.2mm,
clear glass;
8mm PE Plug, transparent
(without insertion barrier)



FK 08 0564

1ml Shell Vial,
40 x 8.2mm,
amber glass;
8mm PE Plug, transparent
(without insertion barrier)



ME 05 0540

0.1ml Micro-Insert,
34 x 5mm, clear glass,
1st hydrolytic class,
13mm top

100 pcs. per PP-Box

10 x100 pieces per PP-Box

9.2 Shell Vials 2ml and appropriate Micro-Insert



FK 11 0567

2ml Shell Vial,
31.5 x 11.6mm,
clear glass;
12mm PE Plug, transparent



FK 11 0568

2ml Shell Vial,
31.5 x 11.6mm,
amber glass;
12mm PE Plug, transparent



ME 06 0218

0.25ml
Micro-Insert,
31 x 6mm, clear glass,
1st hydrol. class,
15mm top



ME 06 0361

0,3ml
Micro-Insert,
31 x 6mm, clear glass,
1st hydrol. class,
12mm top



ME 06 0362

0,35ml
Micro-Insert,
31 x 6mm, clear glass, 1st
hydrol. class, flat bottom

100 pcs. per PP-Box

10 x100 pieces per PP-Box

9.3 Shell Vials 4ml and appropriate Micro-Insert



FK 15 0569

4ml Shell Vial,
44.6 x 14.65mm,
clear glass;
15mm PE Plug,
transparent



FK 15 0570

4ml Shell Vial,
44.6 x 14.65mm,
amber glass;
15mm PE Plug,
transparent



ME 06 0541

0,3ml
Micro-Insert,
43,45 x 6mm,
1st hydrol. class,
13mm top

100 pcs. per PP-Box

10 x100 pcs. per PP-Box

10. Snap Cap Vials ND18, ND22 and ND28

Snap-cap vials are glass containers (often borosilicate, hydrolytic class I or class III, depending on manufacturer) with a push-on (snap) plastic cap — usually polyethylene (PE). The cap “snaps” over a sealing ring around the vial neck, enabling a tight seal without threads or liners in many cases. They are usually used for storing *solids* or *powders* rather than liquids in demanding applications (but some uses include reagents or other materials too) because of their closure style.

Advantages & Special Features

- Quick and easy opening/closing
- No liners required
- Good compatibility and handling
- Variety of sizes (capacity & diameter/height)
- Cost effectiveness / simplicity



10.1 Snap Cap Vials ND18 + ND22



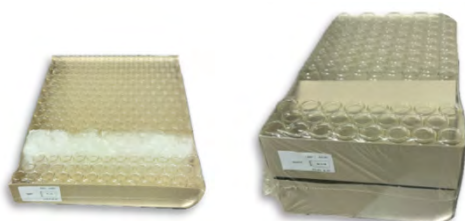
| SF 18 0189 | SF 18 0190 | SF 22 0191 | SF 22 0192 |
|---|--|--|--|
| 5ml Snap Cap Vial ND18, 40 x 20mm, clear glass, 3. hydrol. class | 10ml Snap Cap Vial ND18, 50 x 22mm, clear glass, 3. hydrol. class | 15ml Snap Cap Vial ND22, 48 x 26mm, clear glass, 3. hydrol. class | 25ml Snap Cap Vial ND22, 65 x 26mm, clear glass, 3. hydrol. class |
| Volume of capacity 9,1ml | Volume of capacity 14ml | Volume of capacity 19ml | Volume of capacity 25ml |
| Residual volume 0,3ml | Residual volume 0,5ml | Residual volume 0,6ml | Residual volume 0,6ml |
| for SD 18 0067 | for SD 18 0067 | for SD 22 0068 | for SD 22 0068 |
| 100 pcs. per PP-Box | | | |

10.2 Appropriate PE Snap Caps ND18 + ND22, transparent, closed top

- Snap Caps are available in many other sizes
- For larger purchase quantities, our snap Caps can also be obtained in other colors



| Art. No. | SD 18 0067 | SD 22 0068 |
|-------------|---|---|
| Description | 18mm PE Snap Cap, 19.8 x 5.2mm, transparent, closed top, for vials ND18 | 22mm PE Snap Cap, 23.5 x 5.5mm, transparent, closed top, for vials ND22 |
| | 100 pcs. per PE-Bag | |



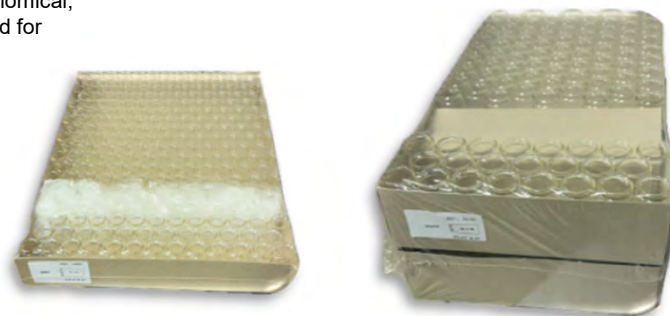
Snap Cap Kits on page 39!

10 Snap Cap Vials ND18, ND22 and ND28

These Snap Cap Vials—typically glass vials with matching polyethylene snap-on caps—are designed for quick, tool-free sealing and reopening. They are economical, easy to use, and ideal for storing solids or powders (though not recommended for volatile liquids or high-pressure applications)

Common Sizes & Kits

- 3 mL (30 × 19 mm) – ND18
- 5 mL (40 × 19 mm) – ND18
- 10 mL (45 × 22 mm) – ND22
- 15 mL (52 × 24 mm) – ND22
- 20–25 mL – range around ND22–ND28 depending on exact size
- 50 mL (100 × 30 mm) – ND28



10.3 2in1Kits (snap cap vial including snap cap)

Clear glass

| Art. No. | KP 18 1273 | KP 18 1947 | KP 22 1442 | KP 22 1522 | KP 22 1432 | KP 22 1431 | KP 28 1523 |
|---------------|--|--|---|---|---|---|---|
| | 3ml | 5ml | 10ml | 15ml | 20ml | 20ml | 25ml |
| KIT descrip.: | 2in1 Kit: 3ml Snap Cap Vial, 30x19mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND18 | 2in1 Kit: 3ml Snap Cap Vial, 40x19mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND18 | 2in1 Kit: 10ml Snap Cap Vial, 45x22mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND22 | 2in1 Kit: 15ml Snap Cap Vial, 52x24mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND22 | 2in1 Kit: 20ml Snap Cap Vial, 55x27mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND22 | 2in1 Kit: 20ml Snap Cap Vial, 70x25mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND22 | 2in1 Kit: 25ml Snap Cap Vial, 50x30mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND28 |
| | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 250 pcs. per cardboard box |

Clear glass

Amber glass

| Art. No. | KP 22 1397 | KP 28 1398 | KP 28 1367 | KP 28 1377 | KP 18 1573 | KP 22 1574 | KP 22 1861 |
|---------------|--|---|---|---|---|--|--|
| | 30ml | 40ml | 50ml | 100ml | 5ml | 10ml | 20ml |
| KIT descrip.: | 2in1 Kit: 30ml Snap Cap Vial, 75x28mm, clear glass, 3. hydrol.class; inclusive Snap Cap ND22 | 2in1 Kit: 40ml Snap Cap Vial, 80x30mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND28 | 2in1 Kit: 40ml Snap Cap Vial, 80x30mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND28 | 2in1 Kit: 100ml Snap Cap Vial, 145x34mm, clear glass, 3. hydrol. class, inclusive Snap Cap ND28 | 2in1 Kit: 5ml Snap Cap Vial, 40x19mm, amber glass , 3. hydrol. Klasse; inclusive Snap Cap ND18 | 2in1 Kit: 10ml Snap Cap Vial, 45x22mm, amber glass , 3. hydrol. Klasse; inclusive Snap Cap ND22 | 2in1 Kit: 20ml Snap Cap Vial, 55x27mm, amber glass , 3. hydrol. Klasse; inclusive Snap Cap ND22 |
| | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box | 200 pcs. per cardboard box |



11. Headspace Precision Thread Vials and Closures ND180

- The times when precision thread vials were mainly used on instruments with magnetic transport mechanism are over. In order to exclude difficulties and risks of a crimping process, instrument manufacturers are striving to make the closing process of the sample bottle and the associated tightness safer and more reproducible.
- PerkinElmer has now added precision thread vials to its product range for all TurboMatrix 16, 40 and 110 autosamplers built after 01.09.2006.
- This means that almost all current headspace autosamplers (Agilent, CTC, Gerstel, PerkinElmer, Shimadzu, Varian) now offer the possibility of using these vials, which can be used universally for headspace + SPME. Another advantage is the thinner septa compared to the crimp caps, which are easier and more gentle on the needle to penetrate.



11.1 Headspace Precision Thread Vials ND18



HS 18 1743

7,5ml
Precision Thread
Vial ND18,
37 x 22mm,
clear glass,
1st hydrol. class,
rounded bottom

R. vol. 800 µl



HS 18 0233

10ml
Precision Thread
Vial ND18,
46 x 22.5mm,
clear glass,
1st hydrol. class,
rounded bottom

R. vol. 800 µl



HS 18 0348

10ml
Precision Thread
Vial ND18,
46 x 22.5mm,
amber glass,
1st hydrol. class,
rounded bottom

R. vol. 800 µl

100 pcs. per PP-Box



HS 18 0234

20ml
Precision Thread Vial ND18,
75,5 x 22.5mm,
clear glass,
1st hydrol. class,
rounded bottom

R. vol. 800 µl



HS 18 0349

20ml
Precision Thread Vial ND18,
75,5 x 22.5mm,
clear glass,
1st hydrol. class,
rounded bottom

R. vol. 800 µl



HS 18 1183

20ml
Precision Thread Vial ND18,
75,5 x 22.5mm,
clear glass,
1st hydrol. class,
label + filling lines
rounded bottom

R. vol. 800 µl



HS 18 1657

20ml
Precision Thread Vial ND 18,
75,5 x 22.5mm,
clear glass,
1st hydrol. class,
+ filling lines
rounded bottom

R. vol. 800 µl

100 pcs. per PP-Box

11. Headspace Precision Thread Vials and Closures ND18



11.2 Magnetic Universal Screw Seals ND18 for Precision Thread Vials



| Art. No. | SV 18 0960 | SV 18 0575 | SV 18 0576 | SV 18 0177 | SV 18 0854 | SV 18 2046 |
|---------------------|--|---|-----------------------------|---------------------------------|--|--|
| Cap: | Magnetic Screw Cap silver, 8mm centre hole | | | | | |
| Septa: | Butyl red/ PTFE grey | Silicone blue transparent/ PTFE white | Silicone white/ PTFE red | Silicone white/ PTFE blue | Silicone white/ Aluminum foil silver | Silicone white/PTFE blue, 55° shore A, with thinned penetration area for SPME application |
| Hardness | 55° shore A | 45° shore A | 45° shore A | 55° shore A | 50° shore A | 55° shore A |
| Thickness: | 1,6mm | 1,3mm | 1,3mm | 1,5mm | 1,3mm | 2,0mm/1,5mm |
| 100 pcs. per PE-Bag | | | | | | |

11.2 Magnetic Universal Screw Seals ND18



| Art. No. | SV 18 2366 | SV 18 0920 | SV 18 1462 |
|---------------------|---|--|--|
| Cap: | Magnetic Screw Cap silver, 8mm centre hole | | |
| Septa: | Silicone blue transparent/ PTFE white | HighTEMP Septa (HTS), Silicone dark- red/PTFE | PTFE virginal/ Ring/ PTFE virginal (AIR-Closure) |
| Hardness | 45° shore A | 45° shore A | 53° shore D |
| Thickness: | 3mm | 3,0mm | 2,5mm |
| 100 pcs. per PE-Bag | | | |

11.3 Magnetic Universal Screw Seals ND18, closed top



| Art. No. | SV 18 0809 | SV 18 0808 |
|---------------------|--|-----------------------------|
| Cap: | Magnetic Screw Cap silver, closed top | |
| Septa: | Butyl red/ PTFE grey | Silicone white/ PTFE red |
| Hardness | 55° shore A | 45° shore A |
| Thickness: | 1,6mm | 1,3mm |
| 100 pcs. per PE-Bag | | |

11.4 Septa 17,5mm for Magnetic Universal Screw Seals ND18



| Art. No. | SE 17 1280 | SE 17 0708 | SE 17 0707 | SE 17 0591 | SE 17 0855 | SE 17 0919 | SE 17 0959 |
|-----------------------|---|-----------------------------|---|---------------------------------|---|---|-------------------------|
| Septa: | Moulded septa, silicone blue/ PTFE transp., 40°shore A, 3,0mm | Silicone white/ PTFE red | Silicone blue transparent/ PTFE white | Silicone white/ PTFE blue | Silicone white/ Aluminum foil silver | High Temperature Septa (HTS), Silicone dark- red/PTFE | Butyl red/ PTFE grey |
| Hardness | | 45° shore A | 45° shore A | 55° shore A | 50° shore A | 45° shore A | 55° shore A |
| Thickness: | | 1,3mm | 1,3mm | 1,5mm | 1,3mm | 3,0mm | 1,6mm |
| 1.000 pcs. per PE-Bag | | | | | | | |

12. Headspace-Vials and Closures ND20 + ND18

Headspace Vials might differ in:

- Volume (5ml, 10ml, 20ml)
- Rounded or flat bottom
- Bevelled top or flat DIN Crimp Neck/Screw Neck
- Length of the Neck (instrument specific)
- Clear/Amber Glass
- Upon request with a barcode label



12.1 General overview Headspace Vials ND18 + ND20

Recommended for: Agilent, Carlo Erba, Dani, Fisons and others

| Art. No.: | HS 20 0235 | HS 20 0236 | HS 20 1680 | HS 20 1672 | HS 20 1913 | HS 20 1914 |
|---------------------|--|--|--|--|---|--|
| Descr.: | 10ml Headspace Vial, 46 x 22.5mm, clear glass, 1st hydrol. class | 20ml Headspace Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class | 10ml Headspace Vial, 46 x 22.5mm, clear glass, 1st hydrol. class | 20ml Headspace Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class | 10ml Headspace Vial, 46 x 22.5mm, clear glass, 1st hydrolytic class | 20ml Headspace Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class |
| Features: | DIN Crimp Neck, flat bottom | DIN Crimp Neck, flat bottom | Bevelled HS-Crimp Neck, flat bottom | Bevelled HS-Crimp Neck, flat bottom | Bevelled HS-Crimp Neck, rounded bottom | Bevelled HS-Crimp Neck, rounded bottom |
| Fill Cap.: | 11,7ml | 21,2ml | 11,7ml | 21,2ml | 11,7ml | 21,2ml |
| Res. Vol.: | 800µl | 800µl | 800µl | 800µl | 800µl | 800µl |
| Useable on: | Agilent, Carlo Erba, Dani, Fisons | Agilent, Carlo Erba, Dani, Fisons | Agilent, Carlo Erba, Dani, Fisons | Agilent, Carlo Erba, Dani, Fisons | Agilent, Carlo Erba, Dani, Fisons (Chromacol 10-CV) | Agilent, Carlo Erba, Dani, Fisons (Chromacol 20-CV) |
| 100 pcs. per PP-Box | | | | | | |

Recommended for: CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS) and others

| Art. No.: | HS 20 0302 | HS 20 0350 | HS 20 0237 | HS 20 0351 | HS 20 0353 | HS 20 0732 |
|-------------|--|--|--|--|---|---|
| Descr.: | 10ml Headspace Vial, 46 x 22.5mm, clear glass, 1st hydrol. class | 10ml Headspace Vial, 46 x 22.5mm, Amber glass, 1st hydrol. class | 20ml Headspace Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class | 20ml Headspace Vial, 75.5 x 22.5mm, amber glass, 1st hydrol. class | 20ml SPME Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class | 20ml SPME Vial, 75.5 x 22.5mm, amber glass, 1st hydrol. class |
| Features: | DIN Crimp Neck, rounded bottom | DIN Crimp Neck, rounded bottom | DIN Crimp Neck, rounded bottom | DIN Crimp Neck, rounded bottom | Special Crimp Neck, rounded bottom | Special Crimp Neck, rounded bottom |
| Fill Cap.: | 12,3ml | 12,3ml | 20,9ml | 20,9ml | 21,2ml | 21,2ml |
| Res. Vol.: | 800µl | 800µl | 800µl | 800µl | 800µl | 800µl |
| Useable on: | CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS) | CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS) | CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS) | CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS) | SPME Vial for CTC PAL | SPME Vial for CTC PAL |

12. Headspace-Vials and Closures ND20 + ND18

12.1 General overview Headspace Vials ND18 + ND20

Recommended for: PerkinElmer, Tekmar and others



| Art. No.: | HS 20 0238 | HS 20 1435 | HS 20 0239 | HS 20 0352 | HS 20 0207 | HS 18 0931 |
|---------------------|---|--|---|---|--|--|
| Descr.: | 5ml Headspace Vial, 38.2 x 22mm, clear glass, 1st hydrol. class | 5ml Headspace Vial, DIN Crimp Neck 38.2 x 22mm, clear glass, 1st hydrol. class | 20ml Headspace Vial, 75.5 x 23mm, clear glass, 1st hydrol. class, | 20ml Headspace Vial, 75.5 x 23mm, amberglass, 1st hydrol. class, label + filling lines | 20ml Headspace Vial, 75.5 x 23mm, clear glass, 1st hydrol. class, label + filling lines | 20ml Headspace Vial, 75.5 x 23mm, clear glass, 1st hydrol. class, with screw thread ND18 |
| Features: | HS-Crimp Neck, rounded bottom | DIN Crimp Neck, rounded bottom | HS-Crimp Neck, rounded bottom | HS-Crimp Neck, rounded bottom | HS-Crimp Neck, rounded bottom | Screw Neck ND18, rounded bottom |
| Fill Cap.: | 9,4ml | 22ml | 22ml | 22ml | 22ml | 21,2ml |
| Res. Vol.: | 800µl | 800µl | 800µl | 800µl | 800µl | 800µl |
| Useable on: | PerkinElmer | PerkinElmer, Tekmar | PerkinElmer, Tekmar | PerkinElmer, Tekmar | PerkinElmer, Tekmar | PerkinElmer |
| 100 pcs. per PP-Box | | | | | | |

Recommended for: Varian and others

Recommended for: Metrohm



| Art. No.: | HS 20 0354 | HS 20 0355 | HS 20 0996 |
|---------------------|---|--|--|
| Descr.: | 5ml Crimp Neck Vial, 38 x 20mm, clear glass, 1st hydrol. class | 10ml Crimp Neck Vial, 54.5 x 20mm, clear glass, 1st hydrol. class | 5ml Headspace Vial, 38,2 x 21,7mm, clear glass, 1st hydrol. class |
| Features: | DIN Crimp Neck, flat bottom | DIN Crimp Neck, flat bottom | HS-Crimp Neck, flat bottom |
| Fill Cap.: | 8ml | 12,2ml | 9,4ml |
| Res. Vol.: | 800µl | 800µl | 800µl |
| Useable on: | Varian | Varian | Metrohm |
| 100 pcs. per PP-Box | | | |

Crimpers and decapper you will find on pages 64-68.



Storage boxes for HS Vials on page 51.

12. Headspace-Vials and Closures ND20 + ND18

12.2 Screw Neck ND18

- For headspace analysis or as sample storage vials
- PP Screw Seals ND18
- With our variety of septa we will find a customized solution for you



| Art. No.: | HS 18 0931 | HS 18 1744 | Compatibility Overview for HS 18 0931 | | |
|---------------------|--|--|---------------------------------------|---|---|
| | 18 09 0864 | no LPP Article | | | |
| Description: | 20ml Headspace-Vial (GL18) 75.5 x 23mm, clear glass, 1st hydrol. class | 7ml Screw Neck Vial (GL18) 37 x 22mm, clear glass, 1st hydrol. class | PerkinElmer | HS40/ HS100/ HS101TurboMatrix HS16/ HS40/ HS40XL/ S40Trap/HS110/ HS110Trap | x |
| Filling Capacity: | 21,2ml | 8ml | Spark | Alias | x |
| Residual Volume: | 800µl | 800 µl | Teledyne Tekmar | 7000/ 7000HT/7050/ HT3 | x |
| | | | Thermo Scientific | Trace 1300 Series | x |
| 100 pcs. per PP-Box | | | | | |

12.2.1 PP Screw Seals ND18

- For headspace analysis or as sample storage vials
- With our variety of septa we will find a customized solution for you



| Art. No. | SV 18 1076 | SV 18 1107 | SV 18 1177 | SV 18 0898 | SV 18 1036 | SV 18 1345 |
|---------------------|--------------------------------|---|------------------------------|---|---------------------------------|--------------------|
| Useable for: | Headspace | | | | Storage | |
| Cap: | PP SC, black, 12mm hole, GL 18 | | | | PP SC, black, closed top, GL 18 | |
| Septa: | Butyl red/ PTFE grey | Silicone transparent blue/PTFE white, 1.3mm | Silicone white/ PTFE blue | Silicone white/ Aluminum foil, silver | Butyl red/ PTFE grey | Butyl dark grey |
| Hardness: | 55° shore A | 45° shore A | 55° shore A | 50° shore A | 55° shore A | 48° shore A |
| Thickness: | 1,6mm | 1.3mm | 1,5mm | 1,3mm | 1,6mm | 3mm |
| 100 pcs. per PE-Bag | | | | | | |

12.2.2 Septa 16mm and Screw Seals ND18



| Art. No. | SE 16 0894 | SE 16 0892 | SE 16 1003 | SE 16 0851 | SE 16 1295 | SK 18 0888 | SK 18 0889 |
|-----------------------|--|-----------------|-------------------------|--|--------------------|---|--|
| Septa/ cap | Natural Ruber red orange/ TEF transp. | Viton, black | Butyl red/ PTFE grey | Silicone white/ Aluminum foil silver | Butyl dark grey | PP Screw Cap ND18, black, with hole | PP Screw Cap ND18, black, closed top |
| Hardness: | 60° shore A | 70° shore A | 55° shore A | 50° shore A | 48° shore A | | |
| Thickness: | 1,3mm | 1,0mm | 1,6mm | 1,3mm | 3mm | | |
| 1.000 pcs. Per PE-Bag | | | | | | 1.000 pcs. per PE-Bag | |































- Further septa available in other materials and thicknesses
- PP Screw Cap ND18 also available in white!

12. Headspace-Vials and Closures ND20 + ND18

Overview of available cap types ND20

- Wide range of vials and seals required to cope with the large number of devices available on the market
- Besides the vial length and the tube diameter, the neck length also plays a major role when selecting a suitable ND20 headspace vial, since these are designed depending on the instrument
- For the selection of a suitable closure, the type of cap is very important in addition to the special requirements for the sealing disc (purity, hardness, thickness, etc.). The transport mechanism from the sampler to the analyser must be considered here in the first instance and thus ensures an initial pre-selection.

- Different characteristics compared
- Various colour coatings for easy sample differentiation
- Tamper-evident perforated caps to prevent manipulation and/or contamination of the septum during transport of the samples

| Aluminum crimp cap | Headspace-cap | Centre tear off cap | Flip-off Cap | Complete tear-off cap | Magnetic crimp cap | Magnetic crimp cap | Magnetic Bi-Metal Cap |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |
|  | |  |  |  | | |  |
|  | |  |  |  | | |  |
|  | |  |  |  | | |  |
|  | |  |  |  | | | |
| | | |  |  | | | |
| | | |  | | | | |
| 10mm hole | 8mm hole | 8mm hole | 8mm hole | | 5mm hole | 8mm hole | 8mm hole |
| | Pressure release cap; comparable with patented PerkinElmer Seal | Tamper evident crimp cap: Centre-Tear-Off part | | Tamper evident crimp cap | CE HS500/ HS800/ CTC500/ Fisons HS500/ HS800 | CTC Combi PAL | CTC Combi PAL |

Basically each of the above mentioned Cap can be combined with a septa of your choice! The cap selection in the following chapter only represents our standard range.

12. Headspace-Vials and Closures ND20 + ND18

12.3.1 Butyl Seals (moulded septa)



| Art. No. | BV 20 0648 | BV 20 0647 | BV 20 0810 | BV 20 0811 | BV 20 0852 | BV 20 0813 | BV 20 1987 | BV 20 1988 |
|---------------------|---|---|---|---|---|---|--|--|
| Cap: | Alu Crimp Cap, clear lacquered, 10mm hole | Headspace- Cap, Clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap, red, 8mm hole |
| Septa: | Moulded septa Butyl, grey, 55° shore A, 3,0mm | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.2 Butyl/PTFE Seals (punched septa)



| Art. No. | BV 20 2154 | BV 20 2320 | BV 20 2321 | BV 20 2322 | BV 20 2323 | BV 20 2324 | BV 20 2325 | BV 20 2326 |
|---------------------|---|---|---|---|---|---|--|--|
| Cap: | Alu Crimp Cap, clear lacquered, 10mm hole | Headspace- Cap, Clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap, red, 8mm hole |
| Septa: | punched septa Buty grey/PTFE grey, 50° shore A, 3,0mm | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.3 Butyl/PTFE Seals (moulded septa)



| Art. No. | BV 20 0157 | BV 20 0248 | BV 20 0814 | BV 20 0572 | BV 20 0392 | BV 20 0654 | BV 20 0223 | BV 20 1989 |
|---------------------|---|---|---|---|---|---|--|--|
| Cap: | Alu Crimp Cap, clear lacquered, 10mm hole | Headspace- Cap, Clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap, red, 8mm hole |
| Septa: | Moulded septa Butyl/PTFE grey, 50° shore A, 3,0mm | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.4 Pharma-Fix Seals (Butyl/PTFE, moulded septa)



| Art. No. | BV 20 0145 | BV 20 0249 | BV 20 0573 | BV 20 0144 | BV 20 0300 | BV 20 0686 | BV 20 0222 | BV 20 1990 |
|---------------------|---|---|---|---|---|---|--|--|
| Cap: | Alu Crimp Cap, clear lacquered, 10mm hole | Headspace- Cap, Clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap, red, 8mm hole |
| Septa: | Pharma-Fix-Septa, Butyl/PTFE, 50° shore A, 3,0mm | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12. Headspace-Vials and Closures ND20 + ND18

12.3.5 Silicone blue transparent/PTFE white and transparent PTFE Seals



| Art. No. | BV 20 0133 | BV 20 0244 | BV 20 0574 | BV 20 0113 | BV 20 0395 | BV 20 0712 | BV 20 1923 | BV 20 1751 |
|---------------------|--|--|---|---|---|---|--|--|
| Cap: | Alu Crimp Cap, clear lacq., 10mm hole | Headspace- Cap, clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap, red, 8mm hole |
| Septa: | Silicone blue transparent/PTFE white, 45° shore A, 3,0mm | | | | | | Silicone blue transparent/ PTFE transparent, 45° shore A, 3,0mm | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.6 Silicone white/PTFE beige



| Art. No. | BV 20 0640 | BV 20 0641 | BV 20 0926 | BV 20 0927 | BV 20 0928 | BV 20 0645 | BV 20 0642 | BV 20 1670 |
|---------------------|--|--|---|---|---|---|--|---|
| Cap: | Alu Crimp Cap, clear lacq., 10mm hole | Headspace- Cap, clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap,red, 8mm hole |
| Septa: | Silicone white/PTFE beige, 45° shore A, 3,0mm | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.7 Silicone white/PTFE white Seals (HT-Quality)



| Art. No. | BV 20 0907 | BV 20 0908 | BV 20 1991 | BV 20 1992 | BV 20 1993 | BV 20 0909 | BV 20 0910 | BV 20 1994 |
|---------------------|--|--|---|---|---|---|--|---|
| Cap: | Alu Crimp Cap, clear lacq., 10mm hole | Headspace- Cap, clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap,red, 8mm hole |
| Septa: | Silicone white/PTFE white, 45° shore A, 3,2mm (HT-Quality) | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.8 Silicone white/PTFE beige Seals (ZeroPeak Quality)



| Art. No. | BV 20 0815 | BV 20 0719 | BV 20 1995 | BV 20 1996 | BV 20 1997 | BV 20 0838 | BV 20 1502 | BV 20 1959 |
|---------------------|--|--|---|---|---|---|--|---|
| Cap: | Alu Crimp Cap, clear lacq., 10mm hole | Headspace- Cap, clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap,red, 8mm hole |
| Septa: | ZeroPeak Septa Silikon natural/PTFE beige, 38° shore A, 3,0mm (improved HT-Quality) | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12. Headspace-Vials and Closures ND20 + ND18

12.3.9 Silicone White/Aluminum foil, silver

- Completely with aluminium foil laminated silicone sept
- Often used on instruments of PERKINELMER
- The same chemical and physical properties like PTFE laminated septa
- Temperature resistant from -60°C to 220°



| Art. No. | BV 20 0525 | BV 20 0527 | BV 20 0830 | BV 20 0526 | BV 20 0731 | BV 20 0839 | BV 20 0823 | BV 20 1998 |
|---------------------|---|--|---|---|---|---|--|--|
| Cap: | Alu Crimp Cap, clear lacq., 10mm hole | Headspace- Cap, clear lacquered, 8mm hole | Centre tear-off cap, clear lacquered | Complete tear-off cap, clear lacquered | Magnetic Crimp Cap, silver, 5mm hole | Magnetic Crimp Cap, silver, 8mm hole | Magnetic Bimetal Cap,blue, 8mm hole | Magnetic Bimetal Cap, red, 8mm hole |
| Septa: | Silicone white/Aluminium foil, silver, 50° shore A, 3,0mm | | | | | | | |
| 100 pcs. per PE-Bag | | | | | | | | |

12.3.10 HTS Silicone dark-red/PTFE Seal

- New closure system with our HTS-Septa dark red/PTFE for high temperature areas in headspace analysis
- Temperature resistant from -60°C to 300°



| Art. No. | BV 20 0923 | SE 20 0917 |
|----------|--|-----------------------|
| Cap: | Magnetic Crimp Cap, silver, 5mm hole | |
| Septa: | High temperature septa (HTS), silicone dark-red/PTFE, 45° shore A, 3.0mm | |
| | 100 pcs. per PE-Bag | 1.000 pcs. per PE-Bag |



12.3.11 Magnetic Seals for SPME Vials HS 20 0353 and HS 20 0732

- To facilitate penetration in the sensitive SPME phase, it is necessary to use thinner septa than the 3.0mm thick septa normally used in headspace
- In addition, our Article BV 20 0699 is based on a thinned teflon barrier, as the PTFE lamination is the most difficult part of the septa to penetrate.
- The ultra-thin full-surface aluminium foil of our article BV 20 0930 offers ideal protection, even against highly aggressive filling materials; combined with the only 1.3mm thin, high-purity white silicone, the Septa is very gentle to the needle
- Viton - see article BV 20 0816 - with its outstanding chemical and physical properties does not require any barrier, as it has a very good resistance to acids, oils and petrol. Temperature resistant from -40°C to 240°C, for a short time Viton even withstands temperature loads of 300°C!



| Art. No. | BV 20 0699 | BV 20 0816 | BV 20 0930 |
|---------------------|--------------------------------------|-----------------|-------------------------------------|
| Cap: | Magnetic Crimp Cap, silver, 8mm hole | | |
| Septa: | Silicone white/PTFE blue | Viton 1A, black | Silicone white/Aluminum foil silver |
| Hardness: | 55° shore A | 70° shore A | 50° shore A |
| Thickness: | 1,5mm | 1,0mm | 1,3mm |
| 100 pcs. per PE-Bag | | | |




| Art. No. | HS 20 0353 | HS 20 0732 |
|---------------------|--|--|
| Description: | 20ml SPME Vial, 75.5 x 22.5mm, clear glass, 1st hydr.class | 20ml SPME Vial, 75.5 x 22.5mm, amber glass, 1st hydr.class |
| Features: | rounded bottom, special crimp neck | |
| | SPME Vial for CTC PAL | |
| 100 pcs. per PP-Box | | |

12. Headspace-Vials and Closures ND20 + ND18

12.4 Septa +Stopper ND20




| Art. No. | SE 20 0646 | SE 20 0156 | SE 20 0143 | SE 20 0087 | SE 20 1214 | SE 20 0700 | SE 20 0524 |
|-----------------------|---------------------------|--------------------------------|--|----------------------------------|--|--------------------------|-------------------------------------|
| Septa: | moulded septa Butyl, grey | moulded septa Butyl/PTFE, grey | Pharma-Fix moulded septa, (Butyl/PTFE) | Silicone blue transp./PTFE white | Pharma-Fix-septa, Silicone blue/PTFE transparent | Silicone white/PTFE blue | Silicone white/Aluminum foil silver |
| Hardness: | 55° shore A | 50° shore A | 50° shore A | 45° shore A | 45° shore A | 55° shore A | 50° shore A |
| Thickness: | 3,0mm | 3,0mm | 3,0mm | 3,0mm | 3,0mm | 1,5mm | 3,0mm |
| 1.000 pcs. per PE-Bag | | | | | | | |



| Art. No. | SE 20 0837 | SE 20 0639 | SE 20 0906 | SE 20 0724 | SE 20 0917 | SE 20 0608 | SE 20 0445 |
|-----------------------|---|--|---------------------------------------|---|-----------------------------------|---|-------------------------------------|
| Septa: | Silicon blue transparent/PTFE transparent | Silicone white/PTFE beige (HT Quality) | Silicon white/PTFE white (HT Quality) | ZeroPEAK Silicon natural/PTFE beige (improved HT Quality) | HTS Septa, Silicone dark-red/PTFE | 20mm UltraClean Silicone stopper, transparent | 20mm Butyl stopper, grey, Brombutyl |
| Hardness: | 45° shore A | 45° shore A | 45° shore A | 38° shore A | 45° shore A | 37° shore A | 45° shore A |
| Thickness: | 3,0mm | 3,0mm | 3,2mm | 3,0mm | 3,0mm | | |
| 1.000 pcs. pro PE-Bag | | | | | | 100 pcs. per PE-Bag | |

12.5 Transport or intermediate seal for HS-edge/ rolled edge ND20 (Wash vial cap ND20)

- 20mm seal often used for washing vials for instruments
- Inexpensive and practical intermediate seal when taking samples outside on site
- Cap height of 8.4mm suitable for HS bottles with bevelled HS crimp neck
- Cap height of 9.1mm for headspace vials with DIN crimp neck.



| Art. No. | SN 20 0903 | SN 20 0933 | SN 20 0934 | SN 20 0935 | SN 20 0936 | SN 20 0937 | SN 20 0938 |
|---------------------|--|-----------------------|--------------------------------------|---|-----------------------|--------------------------------------|---|
| Cap: | 20mm PE-Cap, transparent, cap height 8,4mm, 4,3mm hole for vials with bevelled crimp neck | | | 20mm PE-Cap, transparent, cap height 9,1mm, 4,3mm hole for vials with DIN crimp neck | | | PE-Cap, transparent, cap height 9,1mm, 6mm hole |
| Septa: | Natural Rubber red-orange/TEF transparent | Butyl cream/PTFE grey | Silicone transparent blue/PTFE white | Natural Rubber red-orange/TEF transparent | Butyl cream/PTFE grey | Silicone transparent blue/PTFE white | Silicone transparent blue/PTFE white cross-slit |
| Hardness: | 60° shore A | 55° shore A | 45° shore A | 60° shore A | 55° shore A | 45° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,3mm | 1,3mm | 1,3mm | 1,3mm | 1,3mm |
| 100 pcs. per PE-Bag | | | | | | | |

12.5.1 Septa 19,5mm for Washer Bottle Caps



| Art. No. | SE 19 0902 | SE 19 0939 | SE 19 0940 | SE 19 0941 |
|----------------------|---|-----------------------|--------------------------------------|---|
| Septa: | Natural Rubber red-orange/TEF transparent | Butyl cream/PTFE grey | Silicone transparent blue/PTFE white | Silicone transparent blue/PTFE white cross-slit |
| Hardness: | 60° shore A | 55° shore A | 45° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,3mm | 1,3mm |
| 1.000 pcs per PE-Bag | | | | |

13. Screw Neck Vials and Closures ND24 (EPA)

Screw Neck Vials ND24 (EPA) and Closures ND24 are suitable for autosamplers as their 24 mm thread provides a secure, leak-tight seal required for environmental and large-volume samples. Their standardized EPA design ensures reliable compatibility with automated analytical systems.

Features of Screw Neck Vials and Closures ND24 (EPA):

- **Thread Size:** 24 mm screw neck (EPA standard) for secure, leak-tight sealing.
- **Material:** High-quality clear or amber glass, chemically resistant and suitable for environmental samples.
- **Compatibility:** Designed for use with autosamplers and manual handling; ensures consistent fit with standardized closures.
- **Volume Options:** Typically available in large-volume (20,30,40 and 60ml) suitable for EPA sampling analysis.
- **Sealing Options:** Compatible with screw caps; optional pre-sealed delivery for convenience and sample integrity.
- **Cleanliness:** Can be provided with certified cleanliness for sensitive analyses, such as TOC.
- **Robustness:** Suitable for transport and storage of volatile or sensitive environmental samples without compromise.



13.1 Screw Neck Vials ND24 (EPA)



| Art. No.: | GW 24 0240 | GW 24 0344 | GW 24 0241 | GW 24 0345 | GW 24 0242 | GW 24 0346 | GW 24 0243 | GW 24 0347 |
|------------|---|---|---|---|---|---|---|--|
| Descr.: | 20ml EPA Screw Neck Vial, 57 x 27,5mm, clear glass, 1st hydrol. class | 20ml EPA Screw Neck Vial, 57 x 27,5mm, amber glass, 1st hydrol. Class | 30ml EPA Screw Neck Vial, 72,5 x 27,5mm, clear glass, 1st hydrol. class | 30ml EPA Screw Neck Vial, 72,5 x 27,5mm, amber glass, 1st hydrol. class | 40ml EPA Screw Neck Vial, 95 x 27,5mm, clear glass, 1st hydrol. Class | 40ml EPA Screw Neck Vial, 95 x 27,5mm, amber glass, 1st hydrol. class | 60ml EPA Screw Neck Vial, 140 x 27,5mm, clear glass, 1st hydrol. class | 60ml EPA Screw Neck Vial, 140 x 27,5mm, amber glass, 1st hydrol. class |
| Filling C. | 23,3 | 23,3 | 31,1 | 31,1 | 42,9 | 42,9 | 64,4 | 64,4 |
| Res. Vol. | 0,5 | 0,5 | 0,7 | 0,7 | 0,7 | 0,7 | 0,7 | 0,7 |

100 pcs. per PP-Box

13.2 PP Screw Seals ND24

13.2.2 PP Screw Seals ND24, bonded



| Art. No. | SV 24 0174 | SV 24 0292 | SV 24 2562 |
|------------|---|---|---|
| Cap | open top, 15mm hole | closed top | closed top and open top |
| Septa: | Silicone nature /PTFE beige (EPA Quality) Septa bonded | Silicone nature /PTFE beige (EPA Quality) Septa bonded | Silicone nature /PTFE beige (EPA Quality) Septa bonded |
| Hardness | 45° shore A | 45° shore A | 45° shore A |
| Thickness: | 3,2mm | 3,2mm | 3,2mm |

100 pcs. per PE-Bag

Bonding:

Cap + Liner form an inseparable unit, so that the liner cannot be pushed into the vial even with a blunt needle.

A distinctive attribute of a particular closure system is its ability to create a permanent, inseparable bond between the screw cap and septum. This is achieved through a proprietary manufacturing process that alters the molecular structure of the PP screw cap's surface and modifies the septum, enabling a robust seal without the need for additional adhesives.

13. Screw Vials and Closures ND24 (EPA)

13.2 PP Screw Seals ND24

- Secure Sealing: Provides leak-tight closure for accurate TOC measurements.
- Chemical Resistance: Compatible with acidic and oxidative TOC reagents.
- Standardized Fit: 24 mm screw neck ensures consistent compatibility with EPA vials.
- Pre-Sealed Options: Available pre-sealed to streamline sample preparation and handling.
- Durability: Maintains integrity during storage, transport, and automated analysis.

13.2.2 PP Screw Seals ND24, with hole



| Art. No. | SV 24 0552 | SV 24 2440 | SV 24 1720 | SV 24 0175 <i>ZeroPeak Septa</i> | SV 24 0904 | SV 24 0956 |
|---------------------|--------------------------------|-------------------------|--|--|--|--|
| Cap: | PP Screw Cap, white, 15mm hole | | | | | |
| Septa: | Butyl red/ PTFE grey | Butyl red/ PTFE grey | Silicone white/ PTFE beige (EPA Quality) | <i>ZeroPeak Septa</i> Siliconenature/ PTFE transparent, (EPA Quality) | Silicone white/ aluminium foil silver | Silicone nature /PTFE beige, cross-slit |
| Hardness | 55° shore A | 55° shore A | 45° shore A | 38° shore A | 50° shore A | 45° shore A |
| Thickness: | 2,5mm | 3,0mm | 3,2mm | 3,0mm | 3,0mm | 3,2mm |
| 100 pcs. per PE-Bag | | | | | | |

13.2.3 PP Screw Seals ND24, closed top



| Art. No. | SV 24 0553 | SV 24 2441 | SV 24 1721 | SV 24 0291 <i>ZeroPeak Septa</i> | SV 24 0905 | SV 24 1323 |
|---------------------|---------------------------------|-------------------------|--|--|--|-----------------|
| Cap: | PP Screw Cap, white, closed top | | | | | |
| Septa: | Butyl red/ PTFE grey | Butyl red/ PTFE grey | Silicone white/ PTFE beige (EPA Quality) | <i>ZeroPeak Septa</i> Siliconenature/ PTFE transparent, (EPA Quality) | Silicone white/ aluminium foil silver | Butyl dark grey |
| Hardness | 55° shore A | 55° shore A | 38° shore A | 50° shore A | 48° shore A | |
| Thickness: | 2,5mm | 3,0mm | 3,2mm | 3,0mm | 3,0mm | 3,0mm |
| 100 pcs. per PE-Bag | | | | | | |

13.3 Septa 22mm



| Art. No. | SE 22 0480 | SE 22 1719 | SE 22 0217 | SE 22 0714 | SE 22 0817 |
|-----------------------|-------------------------|--|---|---|--------------------------------------|
| Septa: | Butyl red/ PTFE grey | Silicone white/ PTFE beige (EPA Quality) | <i>ZeroPeak Septa</i> Silicone nature/ PTFE transparent, (EPA Quality) | Silikon white/ PTFE blue cross-slit (only unassembled) | Silikon white/ aluminum silver |
| Hardness | 55° shore A | 45° shore A | 38° shore A | 55° shore A | 50° shore A |
| Thickness : | 2,4mm | 3,2mm | 3,0mm | 1,5mm | 3,0mm |
| 1.000 pcs. per PE-Bag | | | | | |

13.4 PP Screw Cap ND24



| Art. No. | SK 24 0247 | SK 24 0246 |
|-----------------------|--|---|
| Cap: | PP Screw Cap 24mm, white, 15mm hole, thread 24-400 | PP Screw Cap 24mm, white, closed top, thread 24-400 |
| 1.000 pcs. per PE-Bag | | |

14. Vial Racks and Storage Boxes

Key Topics of Vial Racks and Storage Boxes:

Organization: Designed to securely hold multiple vials in an orderly layout, facilitating sample identification and handling.

Compatibility: Available in formats suitable for standard vial sizes and types, including autosampler and EPA vials.

Material: Manufactured from chemically resistant, durable plastics to withstand laboratory conditions and cleaning procedures.

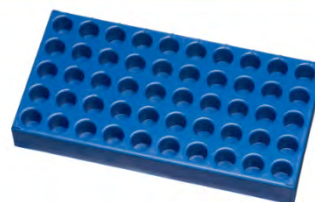
Protection: Provides mechanical support and prevents vial breakage during storage, transport, or automated handling.

Cleanroom Packaging: Options available for high-purity applications, maintaining contamination-free storage.

Stackable and Space-Efficient: Optimized for compact storage in laboratory environments and easy integration with autosampler systems.

Traceability: Some designs allow labeling or coding for batch tracking and sample management.

14.1 Vial Racks



| Art. No. | VR 12 1675 | VR 15 1676 |
|------------------|---|---|
| Description: | PP Vial-Rack, (200 x 105 x 17mm), for 1.5ml vials, 50 cavities, blue, stackable | PP Vial-Rack, (230 x 117 x 28mm), for 4ml vials, 50 cavities, blue, stackable |
| 1 pc. per PE-Bag | | |

14.2 PP Storage Boxes for 1.5ml Sample Vials (81 cavities)



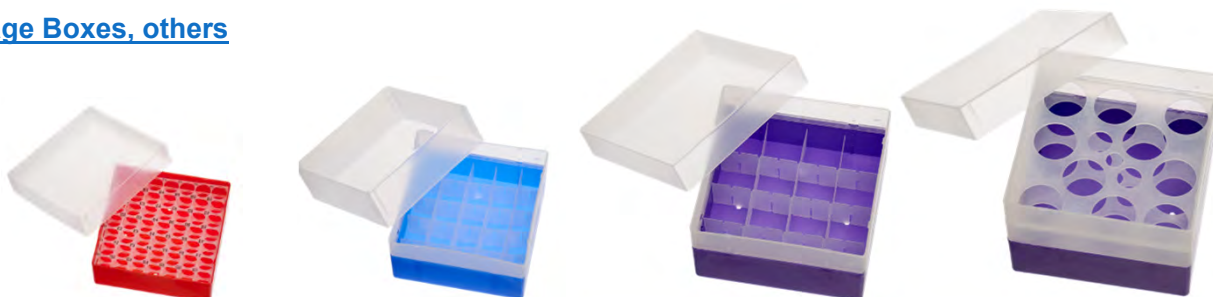
| Art. No. | VR 12 1730 | VR 12 1728 | VR 12 1726 | VR 12 1729 | VR 12 1727 | VR 12 1725 |
|------------------|--|------------|------------|------------|------------|------------|
| Description: | PP Storage Box for 1,5ml (1,8ml, 2ml) vials or 2ml shell vials, with cover (130 x 130 x 45mm), 81 cavities with alphanumeric coding of all 4 margins as well as the cavities at the bottom | | | | | |
| 1 pc. per PE-Bag | | | | | | |

14.3 PP Storage Boxes for 1.5ml Sample Vials (100 cavities)



| Art. No. | VR 12 1736 | VR 12 1734 | VR 12 1732 | VR 12 1735 | VR 12 1733 | VR 12 1731 |
|------------------|---|------------|------------|------------|------------|------------|
| Description: | PP Storage Box for 1,5ml (1,8ml, 2ml) vials or 2ml shell vials, with cover (136 x 136 x 45mm), 100 cavities | | | | | |
| 1 pc. per PE-Bag | | | | | | |

14.4 PP Storage Boxes, others



| Art. No. | VR 15 1858 | VR 20 1887 | VR 24 1999 | VR 24 2000 |
|------------------|---|--|---|---|
| Description: | PP Storage Box for 4ml vials or 4ml shell vials, red, with cover (130 x 130 x 52mm), 49 cavities with alphanumeric coding at the cavities | PP Storage Box for 5ml, 10ml and 20ml Headspace-Vials, blue, with cover (130 x 130 x 102mm), 25 cavities | PP Storage Box for 20ml EPA-Vials, violet, with cover (130 x 130 x 80mm), 16 cavities | PP Storage Box for 30ml and 40ml EPA-Vials, violet, with cover (130 x 130 x 105mm), 10 cavities |
| 1 pc. per PE-Bag | | | | |

15. HPLC Certified Plastic Disposable Syringes, non-sterile with Luer-Lock und Luer Slip

Advantages of HPLC Certified Plastic Disposable Syringes (non-sterile, with Luer-Lock and Luer-Slip)

- HPLC Certification** – Ensures chemical compatibility and freedom from extractables that could interfere with chromatographic analysis.
- Disposable Plastic Design** – Cost-effective, lightweight, and eliminates the need for cleaning or sterilization.
- Non-Sterile Version** – Suitable for laboratory applications where sterility is not required, reducing costs.
- Luer-Lock Compatibility** – Provides a secure, leak-free connection for precise applications.
- Luer-Slip Option** – Allows quick and easy attachment/detachment for flexible use.
- Versatile Application** – Ideal for sample preparation, filtration, and liquid handling in HPLC workflows.
- High Purity Materials** – Manufactured from selected plastics that minimize background interference in analytical results.
- Convenient and Safe Handling** – Ergonomic design ensures ease of use and reduces risk of contamination.

15.1 HPLC certified Plastic Disposable Syringes, non-sterile, with Luer-Lock



| Art. No. | ES 02 1218 | ES 05 1219 | ES 10 1220 | ES 20 1221 |
|---------------------|--|--|---|---|
| Description: | 2ml Disposable Syringes, non-sterile Luer-Lock | 5ml Disposable Syringes, non-sterile Luer-Lock | 10ml Disposable Syringes, non-sterile Luer-Lock | 20ml Disposable Syringes, non-sterile Luer-Lock |
| 100 pcs. per PE-Bag | | | | |

15.2 HPLC certified Plastic Disposable Syringes, non-sterile, with Luer-Slip



| Art. No. | ES 01 1545 | ES 02 1222 | ES 05 1223 | ES 10 1224 | ES 20 1225 |
|---------------------|--|--|--|---|---|
| Description: | 1ml Disposable Syringes, non-sterile, Luer-Sip | 2ml Disposable Syringes, non-sterile, Luer-Sip | 5ml Disposable Syringes, non-sterile, Luer-Sip | 10ml Disposable Syringes, non-sterile, Luer-Sip | 20ml Disposable Syringes, non-sterile, Luer-Sip |
| 100 pcs. per PE-Bag | | | | | |

16. HPLC Syringe filters and Filter Vials

- Ultrasonic welded HPLC syringe filters with high-quality polypropylen housings for sample volumes from 1.0ml to 100ml. An improved welding technique ensures a significantly
- increased pressure resistance of the PP housings of up to 7 bar
- For direct identification our filters are labelled with the respective membrane type and pore size
- The Luer-Lock inlet (female) ensures easy and safe installation of the filter on the syringe
- CHROMA syringe filters are available in diameters of 15mm, 25mm and 30mm
- Pore sizes 0.2µm or 0.45µm
- On request with prefilter and/or as sterile version



Membrane Select-Guide

| Liquid solutions | | | Organic liquid | | Gaseous |
|---|---|---|-----------------|---------------------------|-------------------------------|
| Mechanically demanding alkaline samples | Biological samples, high predein absorption | Biological samples, low predeinabsorption | Organic solvent | Partially organic solvent | Even strongly oxidising gases |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| Nylon | CA Nylon | PES, RC, CA | Nylon, PTFE | RC, CA, PTFE | PTFE |

Which pore size for which application?

| HPLC | Sterile filtration |
|--------|--------------------|
| ↓ | ↓ |
| 0,45µm | 0,2µm |

16.1 15mm HPLC Syringe Filter

- 15mm syringe filter for small sample volumes
- Dead volume < 0,25ml
- Operating pressure: 7 bar
- Effective filter area: 1,77cm²
- For direct identification our filters are labelled with the respective membrane type and pore size
- The Luer-Lock inlet (female) ensures easy and safe installation of the filter on the syringe



16.1.1 15mm HPLC Syringe filters - 0,20µm

| Art. No. | FI 17 0973 | FI 17 0967 | FI 17 0969 | FI 17 0971 | FI 17 0975 | FI 17 0961 |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Description: | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter |
| Membrane: | PTFE | Cellulose Acetat (CA) | Nylon | PES | PVDF | Regenerated Cellulose (RC) |
| Pore Size: | 0,20µm | 0,20µm | 0,20µm | 0,20µm | 0,20µm | 0,20µm |
| 100 pcs. per PE-Bag | | | | | | |

16.1.2 15mm HPLC Spritzenfilter - 0,45µm

| Art. No. | FI 17 0974 | FI 17 0968 | FI 17 0970 | FI 17 0972 | FI 17 0976 | FI 17 0962 |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Description: | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter | 15mm HPLC Syringe Filter |
| Membrane: | PTFE | Cellulose Acetat (CA) | Nylon | PES | PVDF | Regenerated Cellulose (RC) |
| Pore Size: | 0,45µm | 0,45µm | 0,45µm | 0,45µm | 0,45µm | 0,45µm |
| 100 pcs. per PE-Bag | | | | | | |

16. HPLC Syringe filters and Filter Vials

16.2 25mm HPLC Syringe Filter

- 25mm Syringe filter for sample volumes up to 100ml
- Dead volume < 0,65ml
- Operating pressure: max. 7 bar
- Effective filter area: 490mm²
- For direct identification our filters are labelled with the respective membrane type and pore size
- The Luer-Lock inlet (female) ensures easy and safe installation of the filter on the syringe



16.2.1 25mm HPLC Syringe Filter - 0,20µm

| Art. No. | FI 25 0417 | FI 25 0942 | FI 25 0421 | FI 25 0963 | FI 25 0965 | FI 25 0419 |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Description: | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter |
| Membrane: | PTFE | Cellulose Acetat (CA) | Nylon | PES | PVDF | Regenerated Cellulose (RC) |
| Pore Size: | 0,20µm | 0,20µm | 0,20µm | 0,20µm | 0,20µm | 0,20µm |
| 100 pcs. per PE-Bag | | | | | | |

16.2.2 25mm HPLC Syringe Filter - 0,45µm

| Art. No. | FI 25 0418 | FI 25 0720 | FI 25 0383 | FI 25 0964 | FI 25 0966 | FI 25 0420 |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Description: | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter | 25mm HPLC Syringe Filter |
| Membrane: | PTFE | Cellulose Acetat (CA) | Nylon | PES | PVDF | Regenerated Cellulose (RC) |
| Pore Size: | 0,45µm | 0,45µm | 0,45µm | 0,45µm | 0,45µm | 0,45µm |
| 100 pcs. per PE-Bag | | | | | | |

16.3 30mm HPLC Syringe Filter

- 30mm Syringe filter for sample volume > 100ml, or fast filtration
- Dead volume < 175µl
- Operating pressure: max. 7 bar
- Effective filter area: 707mm²
- For direct identification our filters are labelled with the respective membrane type and pore size
- The Luer-Lock inlet (female) ensures easy and safe installation of the filter on the syringe



16.3.1 30mm HPLC Syringe Filter - 0,20µm

| Art. No. | FI 30 1094 | FI 30 1096 | FI 30 1098 | FI 30 1099 | FI 30 1101 |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Description: | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter |
| Membrane: | PTFE | Cellulose Acetat (CA) | Nylon | PES | PVDF |
| Pore Size: | 0,20µm | 0,20µm | 0,20µm | 0,20µm | 0,20µm |
| 100 pcs. per PE-Bag | | | | | |

16.3.2 30mm HPLC Syringe Filter - 0,45µm

| Art. No. | FI 30 1095 | FI 30 1097 | FI 30 1000 | FI 30 1100 | FI 30 1102 |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Description: | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter | 30mm HPLC Syringe Filter |
| Membrane: | PTFE | Cellulose Acetat (CA) | Nylon | PES | PVDF |
| Pore Size: | 0,45µm | 0,45µm | 0,45µm | 0,45µm | 0,45µm |
| 100 pcs. per PE-Bag | | | | | |

16. HPLC Syringe filters and Filter Vials

16.4 PP Filter Vials

Basic product information & short specs

The Chroma Globe Filter Vial is a simple to use sample preparation system that provides a fast, effective and easy to use process by integrating a self-sampling system, a membrane and a snap-ring-cap with slit and non-slit septa. The sample is placed in the outer vial and dispensed by pressing the inner insert to push it through the membrane. The sample is then filtered and the Filter Vial is ready to be inserted into the autosampler for further processing.



USP's Filter Vial features:

- The filter system consists of an internal insert with a membrane chamber and an external vial. In standard the filter system includes snap-ring Caps with a silicon/PTFE septa with slit. Upon request a non-slit septa is available.
- UltraClean Silicon/PTFE liners ensure analytic pure and reproducible analysis results
- The prepared sample is ready for the analysis process.
- Increase sample integrity with all-in vial and filter
- Reduce waste by replacing the syringe, syringe filter, glass vial and cap
- Compatible with almost all autosamplers

Press and proceed!



| Art. No. | FV 11 2142 | FV 11 2144 | FV 11 2146 | FV 11 2148 | FV 11 2150 |
|--------------------------------|--|-----------------------------------|---------------|-----------------------------------|---------------------------|
| Description: | Filter Vial | | | | |
| Membrane: | RC (Regenerated Cellulose) | PVDF (Polyvinylidene Fluoride) | NY (Nylon) | PTFE (Polytetrafluoroethylene) | PES (Polyethersulfone) |
| Pore Size: | 0,20µm | 0,20µm | 0,20µm | 0,20µm | 0,20µm |
| Cap: | 11mm PE snap ring cap, with hole; silicon white/PTFE red, 45° shore A, 1,0mm, cross-slit | | | | |
| Cap Colour: | GREY | YELLOW | LIGH-BLUE | PINK | LIGHT-GREEN |
| 100 pcs. per blue 2in1 Kit box | | | | | |



| Art. No. | FV 11 2143 | FV 11 2145 | FV 11 2147 | FV 11 2149 | FV 11 2151 |
|--------------------------------|--|-----------------------------------|---------------|-----------------------------------|---------------------------|
| Description: | Filter Vial | | | | |
| Membrane: | RC (Regenerated Cellulose) | PVDF (Polyvinylidene Fluoride) | NY (Nylon) | PTFE (Polytetrafluoroethylene) | PES (Polyethersulfone) |
| Pore Size: | 0,45µm | 0,45µm | 0,45µm | 0,45µm | 0,45µm |
| Cap: | 11mm PE snap ring cap, with hole; silicon white/PTFE red, 45° shore A, 1,0mm, cross-slit | | | | |
| Cap Colour: | BLACK | ORANGE | DARK-BLUE | RED | DARK-GREEN |
| 100 pcs. per blue 2in1 Kit box | | | | | |

Analytical Specification

| Membrane Type | Characteristics | Compounds Class |
|--------------------------------|--|---|
| RC (Regenerated Cellulose) | Hydrophilic <ul style="list-style-type: none"> • Very low protein binding • Resistant to a wide range of solvents. | Aqueous and organic solutions |
| PVDF (Polyvinylidene Fluoride) | Hydrophilic <ul style="list-style-type: none"> • Very low protein binding. • High flow rates for faster sample preparation | Alcohols, Biomolecules |
| NY (Nylon) | Hydrophilic <ul style="list-style-type: none"> • Low protein binding • Superior performance | Bases, HPLC solvents, alcohols, aromatic hydrocarbons |
| PTFE (Polytetrafluoroethylene) | Hydrophobic <ul style="list-style-type: none"> • Chemically and biologically inert • Superior chemical resistance. | Organic solvents, acids, alcohols, bases, aromatics |
| PES (Polyethersulfone) | Hydrophilic <ul style="list-style-type: none"> • Designed to remove particulates • Low protein and drug binding | Filtration of buffers and culture media |

17. GC Injection Port Septa

- Long-life, universal GC septums: for a minimum of 450 injections
- Suitable for temperatures of up to 400 °C
- With "Center Guide" for better needle guidance
- Low bleeding (outgassing of siloxanes)
- Excellent dissolving properties from the injection port
- Standard packaging of 25 pieces in resealable screw neck vial, on request also available in bulk packaging of 1,000 pieces



17.1 GC Injection Port Septa



| Art. No. | GC 07 0186 | GC 09 0182 | GC 10 0183 | GC 11 0184 | GC 17 0185 |
|-----------------------------|--------------------------|--|--|---|--|
| Description: | Shimadzu Stopfen, rot | 9,5mm High Performance GC Septa, red | 10mm High Performance GC Septa, red | 11mm High Performance GC Septa, red | 17mm High Performance GC Septa, red |
| Usable for: | Shimadzu, all models | Agilent (HP), 5700/5880 Series Varian, Injector Type: Packed Columns Varian (CP), alle Modelle Tracor, 550,560 Gow-Mac, Alle Modelle Finnigan, 9001, QCQ, GCQ, Trace2000 Antek Unicam, 4600 | Agilent (HP), 5890/6890 Series, 5700/ 5880 Series Varian, Injector Type: Packed Columns Injector Type: Split/ Splitless | Agilent (HP), 5890/6850/6890 Series, 5700/5880 Series,5880A Series Varian, 3300, 3400, 3500, 3600, 3700, Vista (Split/Splitless) Gow-Mac, 6890 Series PerkinElmer, Sigma Series, 900, 990 8000 Series Autosys (XL) | Thermo Scientific Quest, Trace Fisons/ Carlo Erba 8000 Series Finnigan, GCQ w/Trace |
| 25 pcs. per Screw Neck Vial | | | | | |

17.2 GC Injection Port Septa



| Art. No. | GC 07 1784 | GC 09 0178 | GC 10 0179 | GC 11 0180 | GC 17 0181 |
|------------------------------------|-------------------------------------|--|--|---|--|
| Description: | Shimadzu Stopfen, transparent | 9,5mm High Performance GC Septa, transparent | 10mm High Performance GC Septa, transparent | 11mm High Performance GC Septa, transparent | 17mm High Performance GC Septa, transparent |
| Usable for: | Shimadzu, alle Modelle | Agilent (HP), 5700/5880 Series Varian, Injector Type: Packed Columns Varian (CP), alle Modelle Tracor, 550,560 Gow-Mac, Alle Modelle Finnigan, 9001, QCQ, GCQ, Trace2000 Antek Unicam, 4600 | Agilent (HP), 5890/6890 Series, 5700/ 5880 Series Varian, Injector Type: Packed Columns Injector Type: Split/ Splitless | Agilent (HP), 5890/6850/6890 Series, 5700/5880 Series,5880A Series Varian, 3300, 3400, 3500, 3600, 3700, Vista (Split/Splitless) Gow-Mac, 6890 Series PerkinElmer, Sigma Series, 900, 990 8000 Series Autosys (XL) | Thermo Scientific Quest, Trace Fisons/ Carlo Erba 8000 Series Finnigan, GCQ w/Trace |
| 25 pcs. per amber sScrew Neck Vial | | | | | |

18. Injection Vials ND13

- High-quality injection bottles according to DIN/ISO made of tubular glass
- Production exclusively from glass of the 1st hydrolytic class
- Available in clear glass and amber glass
- Cleanroom-packed in a class 100,000 cleanroom, the "CleanPack" seal of quality guarantees this high quality standard



18.1 Injection Vials ND13



| Art. No. | RR 13 0304 | RR 13 0396 |
|---------------------|--|--|
| Description: | 2ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 2ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO |
| Dimension: | 35 x 16mm | 35 x 16mm |
| Content: | 2ml | 2ml |
| 352 pcs. per PP-Box | | |

18.2 Injection Stoppers ND13



| Art. No. | SE 13 0305 | SE 13 0670 | SE 13 2296 |
|--------------|---|---|---|
| Description: | 13mm Injection Stopper, Brombutyl, grey | 13mm Freeze Drying Stopper, Brombutyl, grey | 13mm RTS Freeze Drying Stopper, Brombutyl, grey |
| Hardness: | 45° shore A | | |
| Pack: | 1.000 pcs. per PE-Bag | 3.000 pcs. per PE-Bag | 3.000 pcs. per PE-Bag |

RTS = Ready to sterilisation

18.3 Crimp Caps ND13



| Art. No. | BK 13 0628 | BK 13 0303 | FO 13 0865 |
|-----------------------|--|--|---|
| Description: | 13mm Aluminium crimp cap, clear lacquered, complete tear-off | 13mm Aluminium crimp cap, clear lacquered, centre tear-off | 13mm Flip-Top/ Flip-Off Cap, red, centre tear-off |
| 1.000 pcs. per PE-Bag | | | |

18.4 Crimp Seals ND13



| Art. No. | BV 13 1527 | BV 13 1876 |
|---------------------|--|--|
| Descrip.: | 13mm Aluminium Crimp Cap, clear lacquered, centre hole; Butyl red/PTFE grey, 55° shore A, 1.6mm | 13mmAluminium Crimp cap, silver lacquered, centre tear-off, Butyl red/PTFE grey, 55° shore A, 1.6mm |
| 100 pcs. per PE-Bag | | |

19. Injection Vials ND20

- High-quality injection bottles according to DIN/ISO made of tubular glass
- Production exclusively from glass of the 1st hydrolytic class
- Available in clear glass and amber glass
- Cleanroom-packed in a class 100,000 cleanroom, the CleanPack™ seal of quality
- guarantees this high quality standard



19.1 Injection Vial ND20, clear glass (tubular glass)



| Art. No. | RR 20 0400 | RR 20 0316 | RR 20 0492 | RR 20 0549 |
|--------------|--|---|---|---|
| Description: | 6ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 10ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 20ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 30ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO |
| Dimension: | 40 x 22mm | 45 x 24mm | 55 x 30mm | 75 x 30mm |
| Content: | 6ml | 10ml | 20ml | 30ml |
| Pack | 186 pcs. per PP-Box | 154 pcs. per PP-Box | 91 pcs. per PP-Box | upon request |

19.2 Injection Vial ND20, amber glass (tubular glass)



| Art. No. | RR 20 0399 | RR 20 0251 | RR 20 0548 | RR 20 0550 |
|--------------|--|---|---|---|
| Description: | 6ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 10ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 20ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 30ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO |
| Dimension: | 40 x 22mm | 45 x 24mm | 55 x 30mm | 75 x 30mm |
| Content: | 6ml | 10ml | 20ml | 30ml |
| Pack | 186 pcs. per PP-Box | 154 pcs. per PP-Box | 91 pcs. per PP-Box | upon request |

19. Injection Vials ND20 made of molded glass (cont.)

- High quality injection vials made of smelting glass according to DIN/ISO
- According to Article 3.2.1 of the European Pharmacopoeia PH, corresponds to glass type I. Eur.
- Dust and germfree packaging
- Clear glass and amber glass vials available
- Filling volume from 20ml - 100ml



19.3 Injection Vial ND20, clear glass (molded glass)



| Art. No. | RR 20 0405 | RR 20 0409 | RR 20 0385 | RR 20 0390 |
|--------------|--|--|--|---|
| Description: | 20ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 30ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 50ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 100ml Injection Vial, 1. hydrol. class, clear glass, according to DIN/ISO |
| Dimension: | 58 x 32mm | 62 x 36mm | 73 x 42,5mm | 94,5 x 51,6mm |
| Content: | 20ml | 30ml | 50ml | 100ml |
| Pack | 252 pcs.per PE-foil | 90 pcs.per PE-foil | 90 pcs.per PE-foil | 88 pcs.per PE-foil |

19.4 Injection Vial ND20, amber glass (molded glass)



| Art. No. | RR 20 0406 | RR 20 0410 | RR 20 0411 | RR 20 0412 |
|--------------|--|--|--|---|
| Description: | 20ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 30ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 50ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 100ml Injection Vial, 1. hydrol. class, amber glass, according to DIN/ISO |
| Dimension: | 58 x 32mm | 62 x 36mm | 73 x 42,5mm | 94,5 x 51,6mm |
| Content: | 20ml | 30ml | 50ml | 100ml |
| Pack | 252 pcs.per PE-foil | 90 pcs.per PE-foil | 90 pcs.per PE-foil | 88 pcs.per PE-foil |

19. Injection Vials ND20

19.5 Injection Stoppers ND20



| Art. No. | SE 20 2297 | SE 20 2298 | SE 20 0445 |
|--------------|---|---|--|
| Description: | 20mm RTS Injection stopper, Chlorbutyl, grey, 48° Shore A | 20mm RTS Injection stopper, Brombutyl, red-brown, 48° shore A | 20mm Injection stopper, Brombutyl, grey, 45° shore A |
| Pack | 2.000 pcs. per PE-Bag | 2.500 pcs. per PE-Bag | 2.000 pcs. per PE-Bag |



| Art. No. | SE 20 1509 | SE 20 2369 | SE 20 0107 | SE 20 0608 | SE 20 0143 |
|--------------|---|--|--|--|---|
| Description: | 20mm Freeze Drying Plug, Bromobutyl light grey | 20mm RTS Freeze Drying Plug, Chlorbutyl, grey | 20mm Injection stopper, Butyl grey, covered with a fluorinated polymer coating, 47° shore A | 20mm UltraClean Silicone Stopper, transparent, 37° shore A | 20mm Pharma-Fix Septa, Butyl/PTFE, 50° shore A, 3,0mm |
| Pack | 1.700 pcs. per PE-Bag | 3.400 pcs. per PE-Bag | 5.000 pcs. per PE-Bag | 1.000 pcs. per PE-Bag | 1.000 pcs. per PE-Bag RTS = Ready to sterilisation |

19.6 Aluminum Crimp Cap ND20

19.6.1 Flip-Off - Centre Tear-Off Crimp Caps ND20 (tamper-evident crimp caps)



| Art. No. | FO 20 0281 | FO 20 0551 | FO 20 0280 | FO 20 0577 | FO 20 0295 |
|-----------------------|---|---|--|--|---|
| Descr. | 20mm flip-off cap, centre tear-off, transparent | 20mm flip-off cap, centre tear-off, white | 20mm flip-off cap, centre tear-off, yellow | 20mm flip-off cap, centre tear-off, orange | 20mm flip-off cap, centre tear-off, Red |
| 1.000 pcs. per PE-Bag | | | | | |



| Art. No. | FO 20 0597 | FO 20 0596 | FO 20 0282 | FO 20 0422 | FO 20 0598 |
|-----------------------|--|--|---|--|---|
| Descr. | 20mm flip-off cap, centre tear-off, lavendel | 20mm flip-off cap, centre tear-off, violet | 20mm flip-off cap, centre tear-off, dark-blue | 20mm flip-off cap, centre tear-off, blue | 20mm flip-off cap, centre tear-off, Turquoise |
| 1.000 pcs. per PE-Bag | | | | | |



| Art. No. | FO 20 0600 | FO 20 0309 | FO 20 0599 | FO 20 0595 | FO 20 1044 |
|-----------------------|--|---|---|---|--|
| Descr. | 20mm flip-off cap, centre tear-off, dark-green | 20mm flip-off cap, centre tear-off, green | 20mm flip-off cap, centre tear-off , yellow-green | 20mm flip-off cap, centre tear-off, black | 20mm flip-off cap, centre tear-off, Grey |
| 1.000 pcs. per PE-Bag | | | | | |

19. Injection Vials ND20

19.7.1 Centre Tear-Off Crimp Caps ND20 (tamper-evident crimp caps)



| Art. No. | BK 20 0275 | BK 20 0276 | BK 20 0277 | BK 20 0278 | BK 20 0279 |
|-----------------------|---|--|--|---|---|
| Description: | 20mm Aluminum Crimp Cap, clear lacquered, centre-tear-off | 20mm Aluminum Crimp Cap, blue lacquered, centre-tear-off | 20mm Aluminum Crimp Cap, gold lacquered, centre-tear-off | 20mm Aluminum Crimp Cap, green lacquered, centre-tear-off | 20mm Aluminum Crimp Cap, red lacquered, centre-tear-off |
| 1.000 pcs. per PE-Bag | | | | | |

19.7.2 Complete Tear-Off Crimp Caps ND20 (tamper-evident crimp caps)



| Art. No. | BK 20 0019 | BK 20 0109 | BK 20 0110 | BK 20 0111 | BK 20 0112 |
|-----------------------|---|---|---|--|--|
| Description: | 20mm Aluminum Crimp Cap, clear lacquered, complete tear-off | 20mm Aluminum Crimp Cap, green lacquered, complete tear-off | 20mm Aluminum Crimp Cap, red lacquered, complete tear-off | 20mm Aluminum Crimp Cap, blue lacquered, complete tear-off | 20mm Aluminum Crimp Cap, gold lacquered, complete tear-off |
| 1.000 pcs. per PE-Bag | | | | | |

19.7.3 Flip Tear-Up Caps ND20



| Art. No. | FT 20 1060 | FT 20 0378 | FT 20 0423 |
|-----------------------|--|--|---|
| Description: | 20mm Flip Tear Up Cap, complete tear-off white | 20mm Flip Tear Up Cap, complete tear-off red | 20mm Flip Tear Up Cap, complete tear-off blue |
| 1.000 pcs. per PE-Bag | | | |

20 Infusion Vial ND32

- High-quality infusion vials according to DIN/ISO made of tubular glass
- Dust and germ-free packaging
- Clear glass and amber glass vials available
- Filling volumes from 70ml - 1000ml



20.1 Infusion Vial ND32, clear glass (tubular glass)



| Art. No. | RR 32 0626 | RR 32 0414 | RR 32 0713 | RR 32 1048 |
|--------------|---|---|---|--|
| Description: | 100ml Infusion Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 250ml Infusion Vial, 1. hydrol. class, clear glass, according to DIN/ISO | 500ml Infusion Vial, 2. hydrol. class, clear glass, according to DIN/ISO | 1000ml Infusion Vial, 2. hydrol. class, clear glass, according to DIN/ISO |
| Dimension: | 104 x 49mm | 136 x 66mm | 177 x 78mm | 230 x 95mm |
| Content: | 100ml | 250ml | 500ml | 1000ml |
| Pack | 99 pcs. per tray | 35 pcs. per tray | 35 pcs. per tray | 1 pcs. per box |

20.2 Infusion Vial ND32, amber glass (tubular glass)



| Art. No. | RR 32 1178 | RR 32 1443 | RR 32 1161 |
|--------------|---|---|---|
| Description: | 100ml Infusion Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 250ml Infusion Vial, 1. hydrol. class, amber glass, according to DIN/ISO | 500ml Infusion Vial, 2. hydrol. class, amber glass, according to DIN/ISO |
| Dimension: | 104 x 49mm | 136 x 66mm | 177 x 78mm |
| Content: | 100ml | 250ml | 500ml |
| Pack | 99 pcs. per tray | 35 pcs. per tray | 35 pcs. per tray |

20. Infusion Vials ND32 (Cont.)

20.3 Infusion Stoppers ND32



| Art. No. | SE 32 0694 | SE 32 1059 |
|---------------------|--|---|
| Description: | 32mm Infusion stopper, Brombutyl, grey | 32mm Infusion stopper, Bromobutyl, red-brown, |
| 500 pcs. per PE-Bag | | |

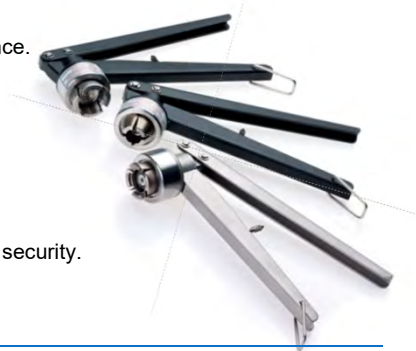
20.4 Crimp Caps ND32



| Art. No. | BK 32 1091 | FO 32 1275 | FO 32 1282 |
|-------------------------|---|--|--|
| Description: | 32mm aluminum crimp cap, clear lacquered, centre tear-off with flap | 32mm Flip-Off cap, red, centre tear-off | 32mm Flip-Off cap, green, centre tear-off |
| 1.000 pieces per PE-Bag | | | |

22. Crimping Tools

- Robust Construction – Durable metal design ensures long service life and consistent crimping performance.
- Ergonomic Handle – Provides comfortable grip and reduces operator fatigue during repetitive use.
- Adjustable Crimping Force - Enables precise sealing according to vial type and cap size.
- Adjustable Crimping Head - Crimp height adjustable
- Compatibility – Suitable for standard crimp caps and vials in laboratory applications.
- Reliable Seal – Ensures tight, secure, and reproducible closure to prevent leakage or contamination.
- Easy Maintenance – Simple cleaning and minimal upkeep required.
- Manual Operation – No external power source needed, making them portable and versatile.
- Laboratory Proven – Commonly used in chromatography, pharmaceutical, and chemical labs for sample security.
- The crimper sizes depend on the inner diameter of the respective crimp caps



22.1 Crimper

22.1.1 Crimper for Aluminum Crimp Caps

- Crimper for aluminium crimp caps are designed for a variety of cap types. Following are the most common types of caps:
 - Standard aluminium crimp caps with hole
 - Headspace crimp caps with pressure release system
 - Centre tear-off caps
 - Complete tear-off cap

| Art. No. | CR 07 0020 | CR 08 0001 | CR 11 0003 | CR 13 0005 |
|-----------------|--------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|
| Description: | Crimper for 7.5mm Aluminum Crimp Cap | Crimper for 8mm Aluminum Crimp Cap | Crimper for 11mm Aluminum Crimp Cap | Crimper for 13mm Aluminum Crimp Cap |
| 1 piece per Box | | | | |

| Art. No. | CR 20 0007 | CR 28 0009 | CR 30 0056 | CR 32 0010 |
|-----------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Description: | Crimper for 20mm Aluminum Crimp Cap | Crimper for 28mm Aluminum Crimp Cap | Crimper for 30mm Aluminum Crimp Cap | Crimper for 32mm Aluminum Crimp Cap |
| 1 piece per Box | | | | |



22.1.2 Crimper for Flip-Off Crimp Caps

- Flip-off Crimper are suitable for our tamper-evident flip-off caps with tear-off plastic centre part (see caps in chapter 16.6.1 on page 47)
- **Caution:** Meanwhile there are a number of crimped caps on the market that come very close to our flip-off caps in terms of their centre tear-off function and appearance. Please note that even the smallest deviations in cap geometry have an effect on the sealing properties of our Crimper. Therefore please pay attention to the "Flip-off" writing on the crimping caps

| Art. No. | CR 11 0021 | CR 13 0013 | CR 16 0062 | CR 20 0015 |
|-----------------|-------------------------------|-------------------------------|---------------------------------|-------------------------------|
| Description: | Crimper for 11mm Flip-off Cap | Crimper for 13mm Flip-off Cap | Crimper for 16.5mm Flip-off Cap | Crimper for 20mm Flip-off Cap |
| 1 piece per Box | | | | |



| Art. No. | CR 28 0025 | CR 30 0026 | CR 32 0444 |
|-----------------|-------------------------------|-------------------------------|-------------------------------|
| Description: | Crimper for 28mm Flip-off Cap | Crimper for 30mm Flip-off Cap | Crimper for 32mm Flip-off Cap |
| 1 piece per Box | | | |




22. Crimping Tools (Cont.)

22.1.3 Crimper for Combination Caps

| Art. No. | CR 13 0545 |
|--------------|---|
| Description: | Crimper for 13mm combination caps |
| | 1 piece per Box |

22.1.4 Crimper for Flip-Tear-Up Crimp Caps

- Flip Tear Up Crimper are suitable for our tamper-evident Flip Tear Up Cap, which can be completely torn open on the side using a plastic tear-off part and predetermined breaking lines (complete tear-off function)
- Decapping tools are therefore not required

| Art. No. | CR 13 0014 | CR 20 0016 | Cap Type (exemplary) |
|--------------|---|---|---|
| Description: | Crimper for 13mm Flip Tear Up Cap | Crimper for 20mm Flip Tear Up Cap |  |
| | | | |
| | 1 piece per Box | | |


22.1.5 Crimper for Flip-Top with flush sides Crimp Caps

| Art. No. | CR 20 0064 | Cap Type (exemplary) |
|-----------------|---|---|
| Description: | Crimper for 20mm Flip top with flush sides crimp caps |  |
| | | |
| 1 piece per Box | | |

22.1.6 Crimper for 3 pc Tear-Off Crimp Caps

| Art. No. | CR 28 0053 | Cap Type (exemplary) |
|-----------------|--|---|
| Description: | Crimper for 28m "3 pc Tear off" Crimp Caps |  |
| 1 piece per Box | | |

22.1.7 Crimper for Pump-Spray Crimp Caps (atomizers)

| Art. No. | CR 15 0022 | CR 16 0023 | CR 20 0024 | Cap Type (exemplary) |
|-----------------|---|---|---|---|
| Description: | Crimper for 15,5mm “spray pump” Seals | Crimper for 16,5mm “spray pump” Seals | Crimper for 20mm “spray pump” Seals |  |
| 1 piece per Box | | | | |

22. Crimping Tools (Cont.)

22.2 Crimper for clean room applications

- The crimping/decapping mechanism is corrosion and heat resistant, making applications possible directly in the clean room
- Even multiple applications do not cause damage to the tool
- Available in sizes from 7,5mm - 32mm
- Crimpers and Decappers are available
- Can optionally be equipped with special handles for better grip (also autoclavable; temperature resistance up to 150° C)
- Adjustable in the flare pressure limitation by means of adjusting screw in the handle
- Additionally all CHROMA Crimpers are height adjustable in the crimp head



22.2.1 Crimper for Aluminium Crimp Caps

Crimper for aluminium crimp caps are designed for a variety of cap types. Following are the most common types of caps:

- Standard aluminium crimp caps with hole
- Headspace crimp caps with pressure release system
- Centre tear-off caps
- Complete tear-off cap

| Art. No. | CR 08 0253 | CR 11 0220 | CR 13 0221 | CR 20 0219 |
|--|------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Description: | Crimper for 8mm Aluminum Crimp Cap | Crimper for 11mm Aluminum Crimp Cap | Crimper for 13mm Aluminum Crimp Cap | Crimper for 20mm Aluminum Crimp Cap |
| sterilisable for clean room applications (please consider technical Data information below!) | | | | |
| 1 piece per Box | | | | |



| Art. No. | CR 28 0267 | CR 30 0271 | CR 32 0274 |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| Description: | Crimper for 28mm Aluminum Crimp Cap | Crimper for 30mm Aluminum Crimp Cap | Crimper for 32mm Aluminum Crimp Cap |
| sterilisable for clean room applications (please consider technical Data information below!) | | | |
| 1 piece per Box | | | |



22.2.2 Crimper for Flip-Off Crimp Caps

- Flip-off Crimper are suitable for our tamper-evident flip-off caps with tear-off plastic centre part (see caps in chapter 16.6.1 on page 48)
- Caution: Meanwhile, there are a number of crimp caps on the market that come very close to our flip-off caps in terms of their centre tear-off function and appearance. Please note that even the smallest deviations in cap geometry have an effect on the sealing properties of our flanging pliers. Therefore please pay attention to the "Flip-off" writing on the crimping caps.



| Art. No. | CR 13 0257 | CR 20 0263 | CR 28 0269 | CR 30 0273 | CR 32 0444 |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Description: | Crimper for 13mm Flip-Off Cap | Crimper for 20mm Flip-Off Cap | Crimper for 28mm Flip-Off Cap | Crimper for 30mm Flip-Off Cap | Crimper for 32mm Flip-Off Cap |
| sterilisable for clean room applications (please consider technical Data information below!) | | | | | |
| 1 piece per Box | | | | | |



Technical data (clean room crimping tools):

Our cleanroom crimping tools ensure sample integrity in a cleanroom environment. The crimp/decapper mechanism is corrosion and heat resistant. The processes listed below, as well as various other low temperature applications, are safe for your new tool. Even repeated sterilisation for cleanroom applications will not damage the cleanroom crimp tool.

| Crimping tool: | Temperature: | Pressure: | Time period: |
|------------------|----------------|--|-----------------|
| not wrapped | 121°C 132°C | 1,05 bar = 105 kPa 2,07 bar = 207 kPa | 15 min 3 min |
| slightly wrapped | 132°C | 2,07 bar = 207 kPa | 8 min |
| strongly wrapped | 132°C | 2,07 bar = 207 kPa | 10 min |




22. Crimping Tools (Cont.)


22.2 Crimper for clean room applications (cont.)

22.2.3 Crimper for „Flip-Tear-Up“ Crimp Caps

- Flip Tear Up crimper are suitable for our tamper-evident Flip Tear Up Cap, which can be torn open completely by means of a plastic tear-off piece and predetermined breaking lines on the side (complete tear-off function)
- Decapper are therefore not required

| Art. No. | CR 13 0258 | CR 20 0265 | Cap Type (exemplary) |
|--------------|---|---|---|
| Description: | Crimper for 13mm Flip Tear Up Cap, height adjustable | Crimper for 20mm Flip Tear Up Cap, height adjustable |  |
| | sterilisable for clean room applications | | |
| | 1 piece per Box | | |


22.2.4 Crimper for Flip-Top with flush sides Crimp Caps

| Art. No. | CR 20 0264 | Cap Type (exemplary) |
|--------------|--|--|
| Description: | Crimper for 20mm Flip-off with flush sides, eight adjustable |  |
| | sterilisable for clean room applications | |
| | 1 piece per Box | |

22.2.5 Crimper for 3 pc Tear-Off Crimp Caps

| Art. No. | CR 28 0270 | Cap Type (exemplary) |
|--------------|--|---|
| Description: | Crimper for 28mm „3 pc tear off“ Caps, height adjustable |  |
| | sterilisable for clean room applications | |
| | 1 piece per Box | |

22.2.6 Crimper for Pump-Spray Crimp Caps (atomizer))

| Art. No. | CR 15 0259 | CR 16 0260 | CR 18 0493 | CR 20 0266 | Cap Type (exemplary) |
|--------------|--|--|--|--|---|
| Description: | Crimper for 15,5mm “Pump Spray closures, height adjustable | Crimper for 16,5mm “Pump Spray closures, height adjustable | Crimper for 18mm “Pump Spray closures, height adjustable | Crimper for 20mm “Pump Spray closures, height adjustable |  |
| | sterilisable for clean room applications | | | | |
| | 1 piece per Box | | | | |

22. Crimping Tools (Cont.)

22.3 Manual Decapping Tools

- Easy and convenient handling
- Chemical resistant powder coating
- High quality construction for durability and long life
- Adjustable in the crimping pressure limitation by means of adjusting screw in the handle

22.3.1 Decapper for Aluminum Crimp Caps

| Art. No. | DC 08 0002 | DC 11 0004 | DC 13 0006 | DC 20 0008 |
|-----------------|--------------|---------------|---------------|---------------|
| Description: | 8mm Decapper | 11mm Decapper | 13mm Decapper | 20mm Decapper |
| 1 piece per Box | | | | |

| Art. No. | DC 28 0011 | DC 30 0027 | DC 32 0012 |
|-----------------|---------------|---------------|---------------|
| Description: | 28mm Decapper | 30mm Decapper | 32mm Decapper |
| 1 piece per Box | | | |



22.3.2 Cleanroom Decappers for Aluminium Crimp Caps

| Art. No. | DC 08 0254 | DC 11 0255 | DC 13 0256 | DC 20 0262 |
|--|--|---|---|---|
| Description: | 8mm Decapper, sterilisable for clean room applications | 11mm Decapper, sterilisable for clean room applications | 13mm Decapper, sterilisable for clean room applications | 20mm Decapper, sterilisable for clean room applications |
| sterilisable for clean room applications | | | | |
| 1 piece per Box | | | | |

| Art. No. | DC 28 0268 | DC 30 0272 | DC 32 0231 |
|--|---|---|---|
| Description: | 28mm Decapper, sterilisable for clean room applications | 30mm Decapper, sterilisable for clean room applications | 32mm Decapper, sterilisable for clean room applications |
| sterilisable for clean room applications | | | |
| 1 piece per Box | | | |



22.3.3 Opening Pliers

- Simple and convenient handling
- Inexpensive alternative for decappers
- Made of stainless steel, therefore also sterilisable and autoclavable

| Art. No. | ÖS 08 0150 | ÖS 11 0151 | ÖS 13 0152 | ÖS 20 0070 | ÖS 30 0153 |
|--|--|---|---|---|---|
| Description: | 8mm opening pliers, sterilisable for clean room applications | 11mm opening pliers, sterilisable for clean room applications | 13mm opening pliers, sterilisable for clean room applications | 20mm opening pliers, sterilisable for clean room applications | 30mm opening pliers, sterilisable for clean room applications |
| sterilisable for clean room applications | | | | | |
| 1 piece per Bag | | | | | |



22. Crimping Tools (Cont.)

22.4 Manual Table Crimper

- Manually operated crimping and decapping tool
- User-friendly handling**, the bottle is crimped or de-crimped by operating the hand lever handle
- Exchangeable crimping and decapping heads** are available in almost 100 sizes (see chapter crimping and decapping heads on page 48f.)
- No tools necessary** for changing the crimping heads
- Ideal use in combination with our CHROMA POWER CRIMPER, as the crimping and decapping heads fit on both machines
- Adjustable, constant and **reproducible crimping pressure**



22.4.1 Overview of our 6 available models

- Ideal use in combination with the CHROMA TABLE CRIMPER as the crimping and decapper heads fit on both units



Steel Version



Granite Version



Stainless Steel Version

| Art. No. | TC 00 0312 | TC 00 0212 | TC 00 0310 | TC 00 0531 | TC 00 0311 | TC 00 0213 |
|-----------------|--|--|--|--|--|--|
| Description: | Manual Table Crimper with large work space | Manual Table Crimper with small work space | Manual Table Crimper with large work space | Manual Table Crimper with small work space | Manual Table Crimper with large work space | Manual Table Crimper with small work space |
| Work space: | Steel 25,45 x 30,5cm | Steel 20,3 x 25,4cm | Granite 25,45 x 30,5cm | Granite 20,3 x 25,4cm | Stainless Steel 25,45 x 30,5cm | Stainless Steel 20,3 x 25,4cm |
| Height: | 45,72cm | 35,56cm | 48,90cm | 38,75cm | 45,72cm | 35,56cm |
| Weight: | 9,5 kg | 7,4 kg | 10,9 kg | 8,4 kg | 9,5 kg | 7,4 kg |
| 1 piece per Box | | | | | | |

22.5 Pneumatic Crimping Tool

22.5.1 Pneumatic Hand-held Crimping Tool

- Pneumatic crimping and decapping tool, operated with compressed air (minimum supply pressure 6.2 bar / 90 psi). User-friendly operation: vials are crimped or decapped simply by pressing a button.
- Exchangeable crimping and decapping heads are available in almost 100 sizes (see chapter 18.5.1.1 crimping and decapping heads on page 58f.)
- No tools necessary for changing the crimping heads
- Ideal use in combination with our CHROMA POWER CRIMPER, as the crimping and decapping heads fit on both machines



| Art. No. | PC 00 0066 | PC 00 0578 | PC 00 0592 |
|-----------------|---|---|--|
| Description: | Pneumatic Basic Crimping Tool, including pressure regulator, safety valve and Nylon (PA) twisted hose (Basic version) | Hanging device with balancer For pneumatic crimping tool (Optional) | Stand, foot pedal and compressed air hose for pneumatic crimping tool (Optional) |
| 1 piece per Box | | | |

22. Crimping Tools (Cont.)

22.5.2 Crimping Heads for Pneumatic Crimping Tool and Table Crimper

- Exchangeable crimping and decapping heads for CHROMA table crimper and/or CHROMA POWER CRIMPER
- With about 100 different sizes we cover almost every need (separate sale)
- No tools are required to change to another size or device.



22.5.2.1. Crimping Heads for Aluminum Crimp Caps

| |  |  |  |  |  |  |  |  |
|-----------------|---|---|---|---|---|---|---|---|
| Art. No. | CR 07 0028 | CR 08 0029 | CR 11 0030 | CR 13 0031 | CR 20 0032 | CR 28 0044 | CR 30 0033 | CR 32 0034 |
| Descr: | C-Head for 7.5mm Alu Crimp Caps | C-Head for 8mm Alu Crimp Caps | C-Head for 7.5mm Alu Crimp Caps | C-Head for 13mm Alu Crimp Caps | C-Head for 20mm Alu Crimp Caps | C-Head for 20mm Alu Crimp Caps | C-Head for 20mm Alu Crimp Caps | C-Head for 32mm Alu Crimp Caps |
| 1 piece per Box | | | | | | | | |

22.5.2.2. Crimping Heads for Flip-off Crimp Caps

| |  |  |  |  |  |  |
|-----------------|---|---|---|---|---|---|
| Art. No. | CR 13 0036 | CR 16 0063 | CR 20 0037 | CR 28 0038 | CR 30 0057 | CR 32 0039 |
| Descr: | C-Head for 13mm Flip-off Crimp Cap | C-Head for 13mm Flip-off Crimp Cap | C-Head for 20mm Flip-off Crimp Cap | C-Head for 28mm Flip-off Crimp Cap | C-Head for 30mm Flip-off Crimp Cap | C-Head for 32mm Flip-off Crimp Cap |
| 1 piece per Box | | | | | | |

22.5.2.3 Other Crimping Heads

| |  |  |  |  |  |
|-----------------|---|---|---|---|---|
| Art. No. | CR 13 0048 | CR 20 0049 | CR 32 0059 | CR 28 0061 | CR 28 0054 |
| Descr: | C-Head for 13mm FLIP TEAR UP Crimp Cap | C-Head for 13mm FLIP TEAR UP Crimp Cap | C-Head for 32mm FLIP TEAR UP Crimp Cap | C-Head for 28mm Short Tear off Crimp Cap | C-Head for 28mm 3pc Tear Off Crimp Cap |
| 1 piece per Box | | | | | |

| |  |  |  |  |
|-----------------|---|---|--|---|
| Art. No. | CR 15 0050 | CR 16 0051 | CR 20 0052 | CR 20 0065 |
| Descr: | C-Head for 15,5mm PUMP SPRAY Crimp Cap | C-Head for 16,5mm PUMP SPRAY Crimp Cap | C-Head for 20mm PUMP SPRAY Crimp Cap | C-Head for 20mm Flip top with flush sides Crimp Cap |
| 1 piece per Box | | | | |

22.5.2.4 Decapping Heads

| |  |  |  |  |  |  |  |
|-----------------|---|---|---|---|--|---|---|
| Art. No. | DC 08 0040 | DC 11 0041 | DC 13 0042 | DC 20 0043 | DC 28 0045 | DC 30 0046 | DC 32 0047 |
| Descr: | D-Head for 8mm Alu Crimp Caps | D-Head for 11mm Alu Crimp Caps | D-Head for 13mm Alu Crimp Caps | D-Head for 20mm Alu Crimp Caps | D-Head for 28mm Alu Crimp Caps | D-Head for 30mm Alu Crimp Caps | D-Head for 32mm Alu Crimp Caps |
| 1 piece per Box | | | | | | | |

22. Crimping Tools (Cont.)

22.6 Vertical Pneumatic Crimping Tool

- Crimping and decapping tool operated by compressed air
- **User-friendly handling**, the vial is crimped or decapped by pressing the release button
- **Exchangeable crimping and decapping heads** (sold separately) for the following sizes and cap types
- **No tools are required** to change to another size or type of cap
- **Space-saving installation** by using a suspension device; spring balancer compensates the weight and guarantees smooth and precise closing or opening
- Adjustable, constant and **reproducible crimping pressure**



| Art. No. | VC 00 0368 | VC 00 1064 | VC 00 0729 |
|-----------------|---|---|--|
| Description: | Vertical pneumatic crimping machine; (2 pistons) includes the basic unit and a pressure reducer, a safety valve and a suitable compressed air hose | Vertical pneumatic crimping machine; (3 pistons) includes the basic unit and a pressure reducer, a safety valve and a suitable compressed air hose | Hanging device with spring balancer for vertical pneumatic crimping tool |
| 1 piece per Box | | | |

22.6.1 Crimping Heads for Vertical Pneumatic Crimping Tool

- Crimping heads are available for Standard Aluminum Crimp Cap and Flip-Off Crimp Cap in sizes 8mm - 20mm
- Sorted by size below



| Art. No. | CV 08 0369 | CV 11 0371 | CV 13 0373 | CV 13 0374 | CV 20 0376 | CV 20 0377 |
|-----------------|-------------------------------|--------------------------------|--------------------------------|------------------------------------|--------------------------------|------------------------------------|
| Description: | C-Head for 8mm Alu Crimp Caps | C-Head for 11mm Alu Crimp Caps | C-Head for 13mm Alu Crimp Caps | C-Head for 13mm Flip-off Crimp Cap | C-Head for 20mm Alu Crimp Caps | C-Head for 20mm Flip-off Crimp Cap |
| 1 piece per Box | | | | | | |

22.6.2 Decapping Heads for Vertical Pneumatic Crimping Tool

- Decapping heads for Aluminum Crimp Cap are available in the sizes 8mm - 20mm
- Sorted by size below



| Art. No. | DV 08 0370 | DV 11 0372 | DV 13 0375 | DV 20 0391 |
|-----------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Description: | D-Head for 8mm Alu Crimp Caps | D-Head for 11mm Alu Crimp Caps | D-Head for 13mm Alu Crimp Caps | D-Head for 20mm Alu Crimp Caps |
| 1 piece per Box | | | | |

23 Screw Neck Vials and Seals for Storage Purposes











Features of Screw Neck Vials and Seals for Storage Purposes:

- Secure Sealing:** Screw neck design with matching seals ensures tight closure to prevent evaporation or contamination during long-term storage.
- Material Quality:** Manufactured from high-purity clear or amber glass, providing chemical resistance and protection against light-sensitive degradation.
- Volume Range:** Available in multiple capacities to accommodate different storage requirements.
- Seal Options:** Compatible with various closure types (PTFE-lined, silicone/PTFE, or septa-free) tailored to storage needs.
- Durability:** Robust construction ensures sample integrity during extended storage and transport.
- Standardization:** Produced according to standardized dimensions for reliable fit and compatibility with racks, boxes, and handling systems.
- Traceability:** Batch-coded for consistent quality control and documentation in regulated environments.



23.1 Screw Neck Vials for Storage Purposes

| |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|--|---|---|---|---|
| Art. No. | GW 08 0193 | GW 08 0799 | GW 13 0454 | GW 13 0455 | GW 15 0636 GW 15 0831 | GW 15 0637 GW 15 0876 | | |
| Thread: | 8-425 | 8-425 | 13-425 | 13-425 | 15-425 | 15-425 | | |
| Description: | 1.5ml Screw Neck Vial, 32 x 11.6mm, clear glass, 1st hydrol. class, small opening | 1.5ml Screw Neck Vial, 32 x 11.6mm, amber glass, 1st hydrol. class, small opening | 4ml Screw Neck Vial, 45 x 14.7mm, clear glass, 1st hydrol. Class | 4ml Screw Neck Vial, 45 x 14.7mm, Amber glass, 1st hydrol. Class | 8ml Screw Neck Vial, 61 x 16.6mm, clear glass, (amber glass), 1. hydrol. class | 12ml Screw Neck Vial, 66 x 18.5mm, clear glass, (amber glass), 1. hydrol. class | | |
| Filling volume (ml) | 1,9 | 1,9 | 5 | 5 | 8,9 | 12 | | |
| Residual volume (µl) | <110 | <110 | <400 | <400 | 800 | 800 | | |
| 100 pieces per Box | | | | | | | | |

| |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|--|---|---|---|---|
| Art. No. | GW 18 1078 | GW 20 1012 GW 20 2209 | GW 24 0240 GW 24 0344 | GW 24 0241 GW 24 0345 | GW 24 0242 GW 24 0346 | GW 24 0243 GW 24 0347 | | | | |
| Thread: | 18-400 | 20-400 | 24-400 | 24-400 | 24-400 | 24-400 | | | | |
| Description: | 16ml Screw Neck Vial, 71 x 20.6mm, clear glass, 1st hydrol. Class | 20ml Screw Neck Vial, 86 x 22.5mm, clear glass, (amber glass), 1st hydrol. Class | 20ml EPA Screw Neck Vial, 57 x 27.5mm, clear glass, (amber glass), 1. hydrol. class | 30ml EPA Screw Neck Vial, 72.5 x 27.5mm, clear glass, (amber glass), 1. hydrol. class | 40ml EPA Screw Neck Vial, 95 x 27.5mm, clear glass, (amber glass), 1. hydrol. class | 60ml EPA Screw Neck Vial, 140x27.5mm, clear glass, (amber glass), 1. hydrol. class | | | | |
| Filling volume (ml) | 17,4 | 24,5 | 23,3 | 31,1 | 42,9 | 64,4 | | | | |
| Residual volume (µl) | 0,8 | 0,8 | 0,5 | 0,7 | 0,7 | 0,7 | | | | |
| 100 pieces per Box | | | | | | | | | | |

23 Screw Neck Vials and Seals for Storage Purposes

23.1 PP Screw Seals for Storage Vials

- Seals available with numerous septa materials
- Cost-effective seal variations with maximum tightness

23.1.2 PP Screw Seals for ND8, ND13, ND15 , ND18, ND20 and ND24



| Art. No. | SV 08 0760 | SV 08 0767 | SV 08 1001 | SV 08 0762 |
|---------------------|--|--------------------------|---------------------------|-----------------------------|
| Thread 8-425 | | | | |
| Cap: | Polypropylen Screw Cap, black, closed top | | | |
| Septa | Natural Rubber red orange/ TEF transparent | RedRubber/ PTFE beige | Butyl cream/ PTFE grey | Silicone white/ PTFE red |
| Hardness: | 60° shore A | 45° shore A | 55° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,0mm | 1,3mm | 1,3mm |
| 100 pcs. per PE-Bag | | | | |



| Art. No. | SV 13 0488 | SV 13 0489 | SV 13 0805 | SV 13 1329 |
|----------------------|--|---------------------------|-----------------------------|--------------------|
| Thread 13-425 | | | | |
| Cap: | Polypropylen Screw Cap, black, closed top | | | |
| Septa | Natural Rubber red orange/ TEF transparent | Butyl cream/ PTFE grey | Silicone white/ PTFE red | Butyl dark-grey |
| Hardness: | 60° shore A | 55° shore A | 55° shore A | 48° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,5mm | 2mm |
| 100 pcs. per PE-Bag | | | | |



| Art. No. | SV 15 0594 | SV 15 0638 | SV 15 0884 | SV 15 0878 | SV 15 1327 |
|----------------------|--|-------------------------|--------------------|---|--------------------|
| Thread 15-425 | | | | | |
| Cap: | Polypropylen Screw Cap, black, closed top | | | | |
| Septa | Natural Rubber red orange/ TEF transparent | Butyl red/ PTFE grey | Viton 1A, black | Silicone white/ Aluminum foil silver | Butyl dark-grey |
| Hardness: | 60° shore A | 55° shore A | 70° shore A | 50° shore A | 48° shore A |
| Thickness: | 1,3mm | 1,6mm | 1,0mm | 1,3mm | 2mm |
| 100 pcs. per PE-Bag | | | | | |

23 Screw Neck Vials and Seals for Storage Purposes

23.1.2 PP Screw Seals for Storage Vials (Cont.)



| Art. No. | SV 18 1300 | SV 18 1303 | SV 18 1304 |
|----------------------|---|-------------------------|-----------------|
| Thread 18-400 | | | |
| Cap: | Polypropylen Screw Cap, black, closed top | | |
| Septa | Butyl red/PTFE grey | Silicone white/PTFE red | Butyl dark-grey |
| Hardness: | 55° shore A | 55° shore A | 48° shore A |
| Thickness: | 1,6mm | 1,5mm | 3mm |
| 100 pcs. per PE-Bag | | | |



| Art. No. | SV 20 1017 | SV 20 1021 | SV 20 1330 |
|----------------------|---|---------------------------|-----------------------------|
| Thread 20-400 | | | |
| Cap: | Polypropylen Screw Cap, white, closed top | | |
| Septa | Natural Rubber red-orange/ TEF transparent | Butyl cream/ PTFE grey | Silicone white/ PTFE red |
| Hardness: | 60° shore A | 55° shore A | 45° shore A |
| Thickness: | 1,3mm | 1,3mm | 1,3mm |
| 100 pcs. per PE-Bag | | | |



| Art. No. | SV 24 0553 | SV 24 0905 | SV 24 1323 | SV 24 0291 |
|----------------------|---|---|-----------------|--|
| Thread 24-400 | | | | |
| Cap: | Polypropylen Screw Cap, white, closed top | | | |
| Septa | Butyl red/PTFE grey | Silicone white/ Aluminum foil silver | Butyl dark-grey | Silicon nature/ PTFE beige (EPA Qualität) |
| Hardness: | 55° shore A | 50° shore A | 48° shore A | 45° shore A |
| Thickness: | 2,4mm | 3,0mm | 3mm | 3,2mm |
| 100 pcs. per PE-Bag | | | | |

24. Washer Bottles

As the sensitivity of the analytical instruments increases, the cleaning and rinsing process of the syringe, which takes the sample from the autosampler vial and then injects it, becomes more and more important. To prevent carry-over from one sample to another, the syringe must be rinsed after each injection. The bottles in which the solvent for rinsing is provided are the so-called wash bottles.

24.1 Washer Bottles

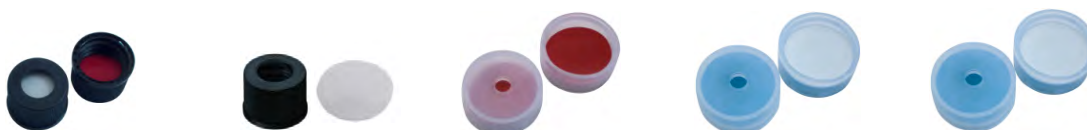


| Art. No. | GW 13 0454 | HS 20 0235 | HS 20 0354 | HS 20 0302 |
|--------------------|--|--|--|--|
| Description: | 4ml Screw Neck Vial, 45 x 14.7mm, clear glass, 1st hydrol. class | 10ml Headspace-Vial, 46 x 22.5mm, clear glass, 1st hydrol. class, flat bottom | 5ml Crimp Neck Vial, 38 x 20mm, clear glass, 1st hydrol. class, flat bottom | 10ml Crimp Neck Vial, 46 x 22.5mm, clear glass, 1st hydrol. class, rounded bottom |
| Washer Bottle for: | Agilent: 7673, 7683 PerkinElmer: Waste + Wash Vial | Thermo Finnigan: AS2000, AS300, A200S | Varian: 8400, 8410 | Varian: CTC PAL Shimadzu: AOC-5000 |

100 pcs. per PP-Box

24.2 Washer Bottles Seals

- On request numerous septa variants are available!
- Below are the most common wash bottle seals



| Art. No. | SV 13 0477 | SK 13 0483 SE 12 0100 | SN 20 0903 | SN 20 0938 | SN 20 0937 |
|------------------|---|---|---|---|--|
| Cap: | 13mm Polypropylen Screw Cap black, 8,5mm hole | 13mm Polypropylen Screw Cap black, 8,5mm hole (SK 13 0483) | 20mm PE Cap, transparent, 4,3mm hole, cap height 8,4mm | 20mm PE Cap, transparent, 6mm hole, cap height 9,1mm | 20mm PE Cap, transparent, 4,3mm hole, cap height 9,1mm |
| Septa: | Silicone white/ PTFE red | 12mm Septa, PTFE virginal, 53° shore D,0,25mm (SE 12 0100) | Natural Rubber Red-orange/ TEF transparent | Silicone blue transp./ PTFE white, cross-slit | Silicone blue transp./ PTFE white |
| Hardness: | 55° shore A | 53° shore D | 60° shore A | 45° shore A | 45° shore A |
| Thickness: | 1,3mm | 0,25mm | 1,3mm | 1,3mm | 1,3mm |
| Washer Seal for: | | | Varian: 8400, 8410; | Varian: CTC | Varian: CTC, 8400, 8410 Thermo Finnigan: A200S Shimadzu: AOC-5000 |

100 pcs. per PE-Bag

25. Septa for Schott Screw Caps GL14 – GL45

- Washed replacement septa for thread screw cap GL14-GL45
- Especially for Schott ScrewCap made of Silicone white/ PTFE beige in 3,2mm thickness or of Butyl red/ PTFE grey with 2,5mm thickness



25.1 Septa for Schott Screw Caps Silicone white/PTFE beige



| Art. No. | SE 12 0986 | SE 16 0849 | SE 23 0987 | SE 30 0988 | SE 43 0738 |
|-------------------------|---|---|---|---|---|
| Thread | GL14 | GL18 | GL25 | GL32 | GL45 |
| Septa: | 12,5mm Septa, Silicon nature/PTFE beige | 16,7mm Septa, Silicon nature/PTFE beige | 23,4mm Septa, Silicon nature/PTFE beige | 30,3mm Septa, Silicon nature/PTFE beige | 43,2mm Septa, Silicon nature/PTFE beige |
| Hardness: | 45° shore A | 45° shore A | 45° shore A | 45° shore A | 55° shore A |
| Thickness: | 3,2mm | 3,2mm | 3,2mm | 3,2mm | 3,2mm |
| 1.000 pieces per PE-Bag | | | | | 500 pieces per PE-Bag |

25.2 Septa for Schott screw Caps Butyl rot/PTFE grau



| Art. No. | SE 12 0989 | SE 16 0990 | SE 23 0991 | SE 30 0992 | SE 43 0993 |
|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Thread | GL14 | GL18 | GL25 | GL32 | GL45 |
| Septa: | 12,9mm Septa, Butyl red/PTFE grey | 16,7mm Septa, Butyl red/PTFE grey | 23,4mm Septa, Butyl red/PTFE grey | 30,3mm Septa, Butyl red/PTFE grey | 43,2mm Septa, Butyl red/PTFE grey |
| Hardness: | 55° shore A | 55° shore A | 55° shore A | 55° shore A | 55° shore A |
| Thickness: | 1,6mm | 1,6mm | 2,5mm | 2,5mm | 2,5mm |
| 1.000 pieces per PE-Bag | | | | | 500 pieces per PE-Bag |

26. Special Products

- Special products can be carried out in every area of our delivery programme
- Special products are not necessarily stock items and may therefore require certain minimum purchase quantities

26.1 Special Vials



| Art. No. | RR 11 0472 | KG 09 1237 | RR 11 2034 | FB 22 1315 | GW 40 1040 |
|--------------|---|---|--|---|--|
| Description: | 2.5ml Crimp Neck Vial, 41 x 11.6mm, clear glass, 1st hydrol. class, wide opening | 2.5ml Short Thread Vial, 41 x 11.6mm, clear glass, 1st hydrol. class, wide opening | 4ml Crimp Neck Vial, 45 x 14.7mm, clear glass, 1st hydrolytic class, wide opening | 13ml Shell Vial, 48 x 22mm, clear glass, 1st hydrol. class, Special bottom for NIR measurements | 100ml Cylindrical glass,, 93,5 x 49mm, clear glass, 3st hydrol. class, Thread DIN40 |
| Size: | 41,1 x 11,6mm | 41,1 x 11,6mm | 45 x 14,7 | 48 x 22mm, | 93,5 x 49mm |
| Volume: | 2,7 | 2,7 | 4,1 | 13 | 115,5 |
| | 100 pcs. per Box | | | | 63 pcs. per tray |

26.2 Culture Tubes

- **NEW:** Culture tubes and matching GL18 PP Screw Seals with inexpensive autoclavable sealing septa made of butyl or butyl/PTFE
- Optionally available as practical 2in1 kits (100 vials and 100 seals per carton)



| Art. No. | GW 18 1338 |
|---------------|---|
| Description : | 12ml Culture Tubes GL18, 100 x 16mm, clear glass, 3st hydrol. class |
| Size: | 100 x 16mm, |
| Volume: | 800µl |
| | 100 pcs. per Box |

| Art. No. | SV 18 1296 | SV 18 1339 |
|------------|---|---|
| Cap: | PP Screw Cap, black, closed top for Culture Tubes (GL18) | PP Screw Cap, black, closed top for Culture Tubes (GL18) |
| Septa: | Butyl dark-grey | Butyl red/PTFE grey |
| Hardness: | 48° shore A | 55° shore A |
| Thickness: | 3,0mm | 2,4mm |
| | 100 pcs. per PE-Bag | |

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