



*Your specialist for chromatography and  
pharmaceutical packaging*



 **Quality**

 **Service**

 **Logistic**



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# CHROMA GLOBE

*Your specialist for chromatography and pharmaceutical packaging*



## 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.

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.

## General organisational matters

All standard items are stock items that usually can be despatched within 24 hours after receipt of order. All products are kept absolutely neutral, i.e. no Chroma Globe article numbers are printed or labelled on the packaging of the products.

As we only supply wholesalers or distributors who promote our products as their own brands, we strictly keep up a policy of neutral packaging. Only batch numbers for reasons of traceability in cases of complaint are attached to the product. For the vials additionally a small schematic drawing of the product is labelled on the front side of the PP-Box to enable identification of the content. Customer specific labelling can be carried out against a small surcharge.

We would like to satisfy the consumers with our products. Therefore everybody is welcome to ask for cost-free samples for testing purposes to evaluate the most appropriate product for his instrument/application with regard to technical suitability, convenience in handling and price-performance ratio. This way you have the opportunity to see and decide before placing an order which product suits best your individual needs.



## Others

There are no prices included in our catalogue nor separate price lists available. Prices are calculated individually, depending on order quantities. We are prepared to submit special offers for annual call-off orders, as we can take the total delivery quantity and number of call-off deliveries into consideration. In case of orders for special products that are not included in our standard delivery programme, we kindly ask you to consider that these orders can only be carried out after release of samples, drawings or specifications. Furthermore we would like to point out that ordered quantities for special articles on customers' request will be adhered to in principle, however, deliveries can either be up to 10% higher or lower than the original quantity.

## 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

## Explanations

- **Cleanroom packed products**

There are different standards of cleanroom classes globally established. When stated, our products are packed in clean rooms of the class ISO 7 or ISO 8 (acc. to ISO 14644-1) which is identical to the class 10.000 or 100K (acc. to US FED STD 209E) for particles  $\geq 0.5 \mu\text{m}$ . Cleanroom classes represent a hygienic standard often found in the pharmaceutical industry. These special rooms have certified conditions for maximum particles per ft<sup>3</sup> or m<sup>3</sup> air. To have a comparison: The environment in a normal room contains billions of particles. The Cleanrooms are regularly measured by external authorities to guarantee the specifications. Such rooms have no windows (air-conditioned) and only material with low particle abrasion is allowed there (Plastic instead of wood or cardboard, etc.). The people have to wear special clothing.

- **Durometer**

Durometer is the hardness of a liner and is expressed in ° shore. The higher the grade the harder the liner; the lower the grade, the softer the liner. The softest liner is 35° shore A and the hardest 70° shore A. Besides the thickness of a liner the hardness is an essential indication when deciding which liner is suitable for the penetration of a certain type of needle (fragile needles, thin or thick needles, sharp or dull needles, etc.)

- **Headspace Neck (bevelled top)**

A Headspace Neck or Headspace Vial with bevelled top has a crimp neck whose outer edges are bevelled. In contrast to a flat DIN crimp neck the liner only has a very small surface to sit on which is a disadvantage regarding tightness (except for Pharma-Fix septa). Headspace Necks or bevelled crimp necks are only necessary when using the patented PerkinElmer Pressure Release Seal consisting of an Aluminum Cap with a slit, a metal star washer plate and a star-shaped liner. This system only releases excess pressure reliably when using a vial with such a top.



## Explanations (Cont.)

- **Micro-Insert**

A Micro-Insert in contrast to a Micro-Vial cannot be sealed on its own. It is neckless and always has to be used within a vial. The diameter of the Micro-Insert is depending on the size of the vial opening. A Micro-Insert reduces the volume, so that a needle is capable of picking up even smallest sample quantities. The longer the top of an Insert the more the volume can be reduced.

- **Micro-Vial**

Micro-Vials can be sealed, but often need an adapter to run in the autosampler. In case they have a conical bottom, they cannot stand by themselves.

- **Microliter Vial (optimised residual emptying)**

Microliter-Vials can be closed independently and do not require an adapter for a safe stand due to their solid flat bottom with inner cone. The inner cone reduces the sample volume in such a way that a needle is still able to hold even small sample quantities. Functionally comparable to a sample vials with integrated or inserted micro insert, but the Micro-Liter vials holds about 5 times the sample volume of a micro insert.

- **Seal**

A Seal is an already assembled closure consisting of a cap and a liner.

- **Silanized**

Silanized vials are used to reduce the adsorption of polar compounds onto the normally polar surface of the glass container. Some compounds like aminoacids, proteins or phenols tend to react with the OH-groups of the glass, even if – as is common for chromatography – 1st hydrolytic class glass is used. Through the silanization process the glass surface is deactivated and so possible reactions between the polar compounds and the glass are eliminated.

## Article Number System

Our 8 digital article number comprises the following indications:

### Article Group

BV=Bördelverschluss  
(Crimp Cap)

### Sequential Number

BV 20 0133  
Diameter in mm

BK = Bördelkappen/empty Crimp Caps  
BV = Bördelverschlüsse/assembled Crimp Caps  
CR = Verschließzangen/Crimper  
CV = Bördelköpfe/Crimping Heads  
DC = Öffnungszangen/Decapper  
DV = Öffnungsköpfe/Decapping Heads  
ES = Einwegspritzen/Disposable Syringes  
FB = Flachbodengläser/Shell Vials  
FE = Federn/Springs  
FI = Filter/Syringe Filters

FK = Flaschen-Kit/Vial Kits  
FO = Flip-Off Kappen/Caps  
FS = Flaschen-Sets/Vials Sets  
FT = Flip-Tear-Up Kappen/caps  
GC = GC Septen/GC Septa  
GW = Gewindeflaschen/Screw Vials  
HS = Headspace-Flaschen/Vials  
KG = Kurzgewindeflaschen/Short Thread Vials  
KP = 2in1 Kits  
ME = Mikroeinsätze/Micro-Inserts  
ÖS = Öffnungsschneider/ Opening Pliers

PC = Pneumatische Bördelgeräte/Pneumatic Crimping Tools  
RR = Rollrandflaschen/ Crimp Neck Vials  
SE = Scheiben/Septen/Liners/Septa  
SF = Schnappdeckelflaschen/Snap Cap Vials  
SK = Schraubenkappen/empty Screw Caps  
SN = Schnappringverschlüsse/Snap Ring Closures  
SR = Schnappringflaschen/Snap Ring Vials  
ST = Stopfen/Stoppers  
SV = Schraubverschlüsse/Screw Closures  
VR = Vial-Racks  
VV = vorverschlossene Flaschen/pre-assembled Vials



## Contacts

### Customer Service

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

Phone: +49 (0) 24 22 / 90 41 38-3

Telefax: +49 (0) 24 22 / 90 41 38-7

E-Mail: [service@chroma-globe.de](mailto:service@chroma-globe.de)

### Order Processing

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

Phone : +49 (0) 24 22 / 90 41 38-2

Telefax: +49 (0) 24 22 / 90 41 38-7

E-Mail: [service@chroma-globe.de](mailto:service@chroma-globe.de)

## General terms and conditions

Orders are based on our general terms and conditions which can be sent to you upon request or can be taken from our website under [www.chroma-globe.de](http://www.chroma-globe.de), icon "Imprint".

At this point we would like to draw your attention to the following:

### Minimum delivery 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 pieces
Vial Racks/Storage Boxes:	1 piece

The minimum order quantities are independent from the packaging units indicated underneath all products. Minimum order value: 250.00 € Our goods are excluded from exchange, legal regulations remain unaffected hereof.

### All information are subject to technical changes!

All data concerning dimensions and volumes are approximate. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details. Products mentioned in the catalogue are intended for general laboratory use (for research and development purposes and analytical quality control and/or routine measurements) only.

They are not suited for clinical use (diagnostic, therapeutic or prognostic). Chroma Globe GbR does not assume any responsibility for damages due to improper application of our products or due to application of our products in other fields of application. The user has to ensure that the products used are suitable for the planned applications. Application on the human body is strictly forbidden. The user is liable of all damages resulting from such application. Chroma Globe GbR products are suited for qualified personnel only.



The vials are preferentially used on instruments of the following manufacturers: Agilent, Beckman, Carlo Erba, CTC, Fisons, PerkinElmer, Shimadzu, Thermo Scientific, VWR (Merck®)/Hitachi, etc.

**Broad selection of Crimp Neck Vials ND8 available:**

- with different volumes
- with flat, round or conical bottom
- in clear or amber glass
- for almost all autosamplers



Micro-Vials often need an adapter to run in the autosampler. They often have a conical bottom shape, so that they cannot stand by themselves, but need an adapter.

**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				

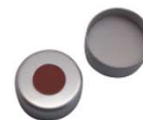
Art. No.	CR 08 0001	DC 08 0002	ÖS 08 0150
Description:	Crimper for 8mm Aluminum Crimp Cap	Decapper for 8mm Aluminum Crimp Cap	Opening plier for 8mm Aluminum Crimp Cap (sterilisable for clean room applications)
Unit = 1 piece per Box			



## 1.2 Aluminum Crimp Seals ND8

### 1.2.1 Natural Rubber/TEF and RedRubber/PTFE Seals

- Temperature resistant from -40°C up to 120°C for Natural Rubber resp. up to 160°C for RedRubber.
- Natural Rubber harder to penetrate with more fragmentation during penetration than RedRubber.
- Natural Rubber ideal for multiple injections due to high resealability, but not as clean as the synthetic RedRubber.



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

- Temperature resistant from -60° C to 200° C
- Preferably only for single injections
- Different hardnesses to meet the respective needle types
- Silicone septa coated on both sides for low particle formation during penetration
- Cleaner than Natural Rubber or as RedRubber



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	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	1,0mm	1,0mm
100 pcs. per PE-Bag					

### 1.2.3 Other Crimp Seals

- PTFE is very inert and temperature resistant, however, problems with leakage due to the inflexibility and thinness of the material
- Only for single injections for non-critical HPLC analysis
- Viton is resistant to a variety of corrosive organic substances; temperature resistant from -40°C to 240°C, main application in the petrochemical industry



Art. No.	BV 08 0984	BV 08 0546	BV 08 0547
Cap:	Aluminum Cap, clear lacquered, 4mm centre hole, with roll groove	Aluminum Cap, clear lacquered, 4mm centre hole	Aluminum Cap, clear lacquered, 4mm centre hole
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			



The vials are preferentially used on instruments of the following manufactures:  
Beckman, CTC, Gilson, Knauer, Shimadzu, Spark, Varian, VWR (Merck®)/Hitachi,  
etc.

#### Standard vials for GC and HPLC.

- Specially suitable for VWR (Merck®)/Hitachi instruments  
(Article GW 08 0193, GW 08 0799, ME 05 0289, SV 08 0657,  
SK 08 0287, SE 08 0018, SE 08 0076)
- Broad range of Micro-Inserts.
- Screw Neck Vials (thread 8/425) with small opening requires  
Micro-Inserts with a diameter of 5mm.
- Vials and seals also available as 2in1 KIT.



### 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 0356	GW 08 0859 GW 08 0860	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 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, 1. hydrol. class, with rounded glass base, 1. hydrol. class (amber glass)	1.1ml Microliter Screw Neck Vial, 32 x 11.6mm, clear glass, 1. hydrol. class (amber glass)
<b>SILANIZED</b> GW 08 0193s	<b>SILANIZED</b> GW 08 0799s	<b>SILANIZED</b> GW 08 0194s	<b>SILANIZED</b> GW 08 0195s			
R. vol. < 110 µl	R. vol. < 110 µl	R. vol. < 110 µl	R. vol. < 110 µl	R. vol. < 3 µl	R. vol. < 15 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
<b>SILANIZED</b> ME 05 0289s	<b>SILANIZED</b> ME 05 0357s	<b>SILANIZED</b> ME 05 0358s	<b>SILANIZED</b> 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			



Vial Racks see page 46.

R. vol. = Residual Volume (µl)

## 2.3 PP Screw Seals ND8

- Ready to use combination seals; no time consuming and “tricky” assembly.
- Available with black or white screw caps with 8-425 thread.
- Available as closed top screw seals or with centre hole.
- Now available either with Natural Rubber or RedRubber as cost-effective seals.

### 2.3.1 Natural Rubber/TEF and RedRubber/PTFE Seals

- Natural rubber temperature resistant from -40°C to 120°C
- RedRubber/PTFE from -40°C bis 160°C
- Natural rubber is more difficult to penetrate than RedRubber and has a higher particle formation
- RedRubber and butyl show less fragmentation than natural rubber
- Natural rubber is ideal for multiple injections due to its good resealing properties, but not as clean as 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 resistant from -60°C to 200°C
- Preferably for single injections only
- Different hardnesses to suit the respective needle types
- Cleaner than natural rubber, RedRubber or butyl
- Silicone septa coated on both sides for low particle formation during penetration



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						

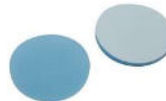
### 2.3.3 Natural Rubber/TEF, RedRubber/PTFE, Butyl/PTFE and Silicone/PTFE Seals, closed top



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				

2.4 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; recommd.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

## 2.6 Special 2in1 Kits for Screw Neck Vials ND8

To carry out an analysis, the user always needs two components at the same time: vial and closure. To fulfill this need in a convenient way Chroma Globe offers 2in1 KITS containing 100 vials and 100 seals in a blue, reclosable PP-box. All advantages of the individual items (CleanPack packaging of the vials, tamper-proof evident packaging of vials and seals, traceability through a batch numbering system, etc.) still remain. Furthermore the customer only has to reorder one article instead of two, which makes life easier.

- 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)
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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)
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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)
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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)
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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)
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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)
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100 Vials and 100 Closures per 2in1 Kit

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

- Pre-screwed vials reduce the risk of contamination of the vials in the laboratory. Furthermore, special applications (e.g. in the tobacco industry) may require a pre-sealed vial.



The vials can be used on all common autosamplers due to their technical geometry, preferentially they are found on Agilent, HTA, Shimadzu, Thermo Scientific, Varian, Waters®, etc.

### The Universal Autosampler Vial

- Universally compatible on almost all autosamplers, thereby rationalization of other 1.5ml vials, as for instance 11mm Crimp Neck Vials, Screw Neck Vials 8-425 and 10-425, is possible.



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

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

BaseBond

Available soon!

Available soon!









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 with small micro-insert	Short Thread Vial with integrated 0.2 ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class with small micro-insert	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	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	Short Thread Vial with integrated 0.3 ml Micro-Insert, 32 x 11.6mm, clear glass, 1 st hydrol. class, with wide micro-insert	Short Thread Vial with integrated 0.3 ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, with wide micro-insert	Short Thread Vial with integrated 0.3ml Micro-Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch and filling lines, with wide micro-insert	Short Thread Vial with integrated 0.3ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch and filling lines, with wide micro-insert
"Base Bond"	"Base Bond"	"Base Bond"	"Base Bond"	"Base Bond"	"Base Bond"	"Base Bond"	"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)



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

				TopBond	TopBond
					
<b>KG 09 1122</b>	<b>KG 09 0863</b> <b>KG 09 0864</b>	<b>KG 09 0365</b>	<b>KG 09 1201</b> <b>KG 09 1321</b>	<b>KG 09 0363</b>	<b>KG 09 0364</b>
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, <b>(amber glass)</b> 1st hydrol. class with rounded glass base	1.1ml Microliter Short Thread Vial , 32 x 11.6mm, clear glass, 1.hydrol. Klasse <b>SILANIZED</b> <b>KG 09 0365s</b>	1.1ml Microliter Short Thread Vial , 32 x 11.6mm, clear glass, <b>(amber glass)</b> 1.hydrol. Klasse <b>SILANIZED</b> <b>KG 09 1201s</b>	Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, <b>writing patch and</b> <b>filling lines,</b> with small micro-insert <b>„TopBond“</b>	Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, <b>writing patch and</b> <b>filling lines,</b> with small micro-insert <b>„TopBond“</b>
R. vol. < 1 µl	R. vol. < 15 µl	R. vol. < 15 µl	R. vol. < 15 µl		
100 pieces per PE-Bag					

### 3.3 Plastic Micro-Vials ND9

						
<b>KG 09 0446</b>	<b>KG 09 0447</b>	<b>KG 09 0469</b>	<b>KG 09 0471</b>	<b>KG 09 0468</b>	<b>KG 09 0466</b>	<b>KG 09 0470</b>
1.5ml PP Short Thread Vial, transparent, filling lines, 32 x 11.6mm, slightly concave shaped bottom	1,5ml PP Short Thread Vial, amber, filling lines, 32 x 11.6mm, slightly concave shaped bottom	0,3ml PP Short Thread Micro-Vial, transparent, 32 x 11.6mm	0,3ml PP Short Thread Micro-Vial, amber, 32 x 11.6mm	0,7ml PP Short Thread Micro-Vial, transparent, 32 x 11.6mm	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





### 3.4 PP Short Thread Seals ND9

- Screw cap with the design of a crimp cap; therefore suitable for robotic handling.
- Already assembled seal with slit liner available, in order to avoid vacuum within the vial in case of multiple injections.
- Short thread seals also available as closed top version for storage purposes.



#### Septa Knowledge center:

##### PTFE virginal Seals

- 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

##### Natural Rubber/TEF Seals

- Temperature resistant from -40 °C up to 120 °C
- Standard seal for GC and HPLC
- Ideal for multiple injections due to high resealability
- Not as clean as synthetic rubber
- Application area: HPLC/GC

##### RedRubber/PTFE beige /transparent) Seals

- 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 Seals

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

##### (PTFE)/Silicone/PTFE Seals

- 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 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

The right choice of septa depends on the application. Almost all septa are laminated on one side with PTFE, which has a high chemical resistance and forms an inert barrier between sample and carrier material of the septa. The carrier materials have different physical and chemical properties, such as temperature resistance, resealability properties, cleanliness, hardness, thickness, etc.

The individual conditions of the customer's application aim at the specific characteristics of the carrier material, e.g.:

Multiple Injection?	Temperature?			Thin, fragile needle?	Blunt, thick needle?	Critical analysis?	Low coring?
↓	↓			↓	↓	↓	↓
good resealability properties necessary	40°C up to 120°C	-40°C up to 110°C	60°C up to 200°C	soft and thin septa required	slit/pre-cut liner as penetration aid (HPLC)	very clean liner required	Both sided PTFE laminated liners required
↓	↓	↓	↓	↓	↓	↓	↓
Natural Rubber/TEF	Natural Rubber /TEF; Butyl/ PTFE	Red Rubber/ PTFE	Silicone /PTFE	Silicone/ PTFE	e.g. SE 08 0076	ZeroPeak and EasyPierce Silicone/PTFE septa	PTFE/Silicone/ PTFE PTFE/Butyl/ PTFE

### 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
<b>Septa:</b>	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)
<b>Durometer:</b>	53° shore D	60° shore A	45° shore A	55° shore A	45° shore A	55° shore A	55° shore A
<b>Thickness:</b>	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
<b>Septa:</b>	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)
<b>Durometer:</b>	53° shore D	60° shore A	45° shore A	55° shore A	45° shore A	55° shore A	55° shore A
<b>Thickness:</b>	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
<b>Septa:</b>	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)
<b>Durometer:</b>	53° shore D	60° shore A	45° shore A	55° shore A	45° shore A	55° shore A	55° shore A
<b>Thickness:</b>	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

### 3.4.5 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
<b>Septa:</b>	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)
<b>Hardness:</b>	53° shore D	60° shore A	45° shore A	55° shore A	45° shore A	55° shore A	55° shore A
<b>Thickness:</b>	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)

- With pre-cut septa only the silicone material is slit in Y-shape while the PTFE lamination remains intact. This way concentration changes occurring with completely slit septa can be avoided
- Ideal penetration aid for blunt and thick instrument needles, and prevents the concentration fluctuations that frequently occur with 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				

### 3.4.9 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
<b>Cap:</b>	PP SC, transparent, 6mm hole	PP SC, blue, 6mm hole	PP SC, transparent, 6mm hole	PP SC, blue, 6mm hole
<b>Septa:</b>	Aluminum Septa (additional sealing through O-ring)	Aluminum Septa (additional sealing through O-ring)	PTFE virginal, 0,25mm (additional sealing by O-ring)	PTFE virginal, 0,25mm (additional sealing by O-ring)
<b>Hardness:</b>			53° shore A	53° shore A
<b>Thickness</b>	0,06mm	0,06mm	0,20mm	0,20mm
100 pcs. per PE-Bag				

### 3.4.10 UltraBond Seals ND9

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

- A special feature of an UltraBond closure system is that the screw cap and septa form an inseparable unit. This is made of a patented manufacturing process in which the molecular structure of the contact surface of the PP screw cap and the septa is modified in such a way that they form a strong bond without the use of adhesives.
- Comparable systems on the market are LECTRABOND Seals from WATERS® and the INTERSEAL closure from Agilent



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	1,3mm	1,3mm	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)



Art. No.	SV 09 1153	SV 09 1173	SV 09 1124
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
Septa:	Silicone white/PTFE red	Silicone white/PTFE blue, slit	Natural Rubber red-orange/TEF transparent
Hardness:	45° shore A	55° shore A	60° shore A
Thickness:	1,0mm	1,0mm	1,0mm

100 pcs. per PE-Bag

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



To carry out an analysis, the user always needs two components at the same time: vial and closure. To fulfill this need in a convenient way Chroma Globe offers 2in1 KITS containing 100 vials and 100 seals in a blue, reclosable PP-box. All advantages of the individual items (CleanPack packaging of the vials, tamper-proof evident packaging of vials and seals, traceability through a batch numbering system, etc.) still remain. Furthermore the customer only has to reorder one article instead of two, which makes life easier.

#### 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	9mm PP Short Thread Cap, blue, with centre hole; RedRubber / PTFE beige, 45° shore A, 1,0mm
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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	9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm
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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	9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm
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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	9mm PP Short Thread Cap, blue, centre hole; Natural Rubber red- orange/TEF transparent, 60° shore A, 1.0mm
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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	9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm
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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	9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE blue, 55° shore A, 1.0mm, slit
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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	9mm PP Short Thread Cap, black, with centre hole; RedRubber / PTFE beige, 45° shore A, 1,0mm
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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	9mm PP Short Thread Cap, black, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm
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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	9mm PP Short Thread Cap, black, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm
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100 Vials and 100 Closures per 2in1 Kit



### 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

9mm  
**UltraBond**  
PP Short Thread  
Cap, blue, centre  
hole; Silicone  
beige/PTFE white,  
45° shore A, 1.0mm

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

9mm  
**UltraBond**  
PP Short Thread  
Cap, blue, centre  
hole; Silicone  
beige/PTFE white,  
45° shore A,  
1.0mm, **slit**

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

9mm  
**UltraBond**  
PP Short Thread  
Cap, blue, centre  
hole; Silicone  
beige/PTFE white,  
45° shore A,  
1.0mm, **slit**

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

9mm  
**UltraBond**  
PP Short  
Thread Cap,  
blue, centre hole;  
Silicone  
beige/PTFE  
white,  
45° shore A, 1.0mm

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

9mm  
**UltraBond**  
PP Short  
Thread Cap,  
blue, centre hole;  
Silicone  
beige/PTFE white,  
45° shore A, 1.0mm

100 Vials and 100 Closures per 2in1 Kit



KP 09 1906

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

9mm  
**UltraBond**  
PP Short  
Thread Cap,  
blue, centre hole;  
Silicone  
beige/PTFE  
white,  
45° shore A,  
1.0mm, **slit**

100 Vials and 100 Closures per 2in1 Kit

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

Sometimes 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 can provide you with any type of pre-sealed vial.**



### 3.7 Certified Vial KITs (Short Thread Vials and Short Thread Seals ND9)



#### HPLC and GC certified Vial KITs:

Certifications are becoming increasingly important in the day-to-day work of laboratories in order to make analytical processes more reproducible and to eliminate possible sources of error. For Chroma Globe, the highest quality of vials and closures are mandatory and are analytically confirmed by the HPLC and GC certification.

#### 3.7.1 HPLC and GC certified Vial Kits (Short Thread ND9)

- Each batch of HPLC and GC-certified KIT is tested on 15 critical parameters. In a realistic method, an HPLC/UV and GC/MS-test of vials/closure combination of blanks and contaminations will be carried out.
- 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, l  
abel + 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

### 3.7 Certified Vial KITs (Short Thread Vials and Short Thread Seals ND9) Cont.

The LC/MS and GC/MS Certified KITs represent our premium range of certified products. Each lot of the vial/closure combination has been tested by LC/MS and GC/MS on traces of blank values and contaminations.



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

- The glass surface of the vials provides very low adsorption tendencies for all types of polar compounds; in fact a lot lower as for all other vials of 1st hydrolytic class glass (without surface treatment)..
- The closure contains a very soft ultra low bleed (**EASYPIERCE** High Performance) silicone septum with PTFE layer, optimized for ultra trace analysis.
- The batch-specific test certificate with the MS-Chromatograms can be handed out on 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  
0,2ml 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

The vials are preferentially used on instruments of the following manufacturers: Jasco, PerkinElmer, Shimadzu, Varian, Waters®, etc.

- Wide opening allows easy filling
- Wide range of micro inserts
- Each combination of a 1.5ml threaded vial is available with a suitable screw cap as a 2in1 kit
- Closed top screw seals for storage
- Single septa as replacement available



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

					
<b>GW 10 0451</b>	<b>GW 10 0452</b>	<b>GW 10 1038</b>	<b>GW 10 0453</b>	<b>GW 10 0861</b> <b>GW 10 0862</b>	<b>GW 10 1319</b> <b>GW 10 1320</b>
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.

				
<b>ME 06 0218</b>	<b>ME 06 0361</b>	<b>ME 06 0362</b>	<b>ME 06 0232</b>	<b>ME 06 1174</b>
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 ME 06 0218s	SILANIZED ME 06 0361s	SILANIZED ME 06 0362s	SILANIZED ME 06 0232s	
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)

### 4.3 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 Screw 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, <i>slit</i>	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!



The vials are preferentially used on instruments of the following manufacturers: Agilent, Carlo Erba, CTC, DANI, Fisons, Gerstel, Jasco, PerkinElmer, Shimadzu, Spark, Thermo Scientific, Varian, etc.

- Standard vials for GC and HPLC.
- Vials with a barcode label can be obtained as well as pre-crimped vials.
- Wide range of suitable standard crimp Seals, micro inserts and appropriate crimping and decapping tools



### 5.1 Crimp Neck Vials ND11, 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
<b>SILANIZED RR 11 0176s</b>	<b>SILANIZED RR 11 0198s</b>	<b>SILANIZED RR 11 0895s</b>	<b>SILANIZED RR 11 0199s</b>	<b>SILANIZED ME 06 0218s</b>	<b>SILANIZED ME 06 0361s</b>	<b>ILANIZED ME 06 0362s</b>	<b>SILANIZED ME 06 0232s</b>
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

### 5.2 Micro-Inserts for Vials with wide opening



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

Available soon!

Available soon!




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 with small micro-insert	Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class with small micro-insert	Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch, with small micro-insert	Crimp Neck Vial with integrated 0.2ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch, with small micro-insert	Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, with wide micro-insert	Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, with wide micro-insert	Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch, with wide micro-insert	Crimp Neck Vial with integrated 0.3ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch, with wide micro-insert
<b>"BaseBond"</b>	<b>"BaseBond"</b>	<b>"BaseBond"</b>	<b>"BaseBond"</b>	<b>"BaseBond"</b>	<b>"BaseBond"</b>	<b>"BaseBond"</b>	<b>"BaseBond"</b>
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








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

						TopBond	TopBond
							
<b>RR 11 0294</b> <b>RR 11 1682</b>	<b>RR 11 1200</b> <b>RR 11 1316</b>	<b>SR 11 1123</b> <b>SR 11 1408</b>	<b>RR 11 0366</b>	<b>RR 11 0367</b>	<b>RR 11 0872</b> <b>RR11 0873</b>	<b>RR 11 0322</b>	<b>RR 11 0323</b>
1.1ml Microliter-Vial, Crimp Neck 32 x 11.6mm, clear glass, <b>(amber glass)</b> 1st hydrol. class	1.1ml Microliter-Vial, Crimp Neck 32 x 11.6mm, clear glass, <b>(amberglass)</b> 1st hydrol. class	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, <b>(amber glass)</b> 1st hydrol. Class, <b>with rounded glass base</b>	Crimp Neck Vial with integrated 0,2ml Micro- Insert, 32 x 11.6mm, clear glass, 1st hydrol. class, writing patch, with small micro-insert <b>„TopBond“</b>	Crimp Neck Vial with integrated 0,2ml Micro- Insert, 32 x 11.6mm, amber glass, 1st hydrol. class, writing patch, with small micro-insert <b>"TopBond"</b>
<b>SILANIZED</b> <b>RR 11 0294s</b>	<b>SILANIZED</b> <b>RR 11 1200s</b>						
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	100 pcs. per PP-Box	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

<div><div></div><div></div><div></div><div></div><div></div></div>					
Art. No.	BV 11 0216	BV 11 0650	BV 11 0651	BV 11 0652	BV 11 0653
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 *tested instrument manufacturer quality*				
100 pcs. per PE-Bag					

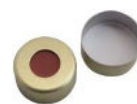
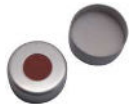
### 5.3.2 Natural Rubber/Butyl/TEF Seals

- 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

<div><div></div><div></div><div></div><div></div><div></div></div>					
Art. No.	BV 11 0336	BV 11 0503	BV 11 0504	BV 11 0505	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, blue 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					

### 5.3.3 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	1,0mm	1,0mm
100 pcs. per PE-Bag				

### 5.3.6 Butyl/PTFE Seals

- Temperature resistance from -40° C to 120° C



Art. No.	BV 11 0130	BV 11 0382
Cap:	Aluminium Bördelkappe, farblos lackiert, 5,5mm Loch	
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		

## 5.3 Aluminum Crimp Seals ND11 (Cont.)

### 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
<b>Cap:</b>	Magnetic Crimp Cap, silver lacquered, 5mm hole	
<b>Septa:</b>	Silicone white/PTFE red	PTFE red/Silicone white/PTFE red
<b>Hardness:</b>	45° shore A	45° shore A
<b>Thickness:</b>	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
<b>Cap:</b>	Aluminum Crimp Cap, clear lacquered, 5,5mm hole, with roll groove	
<b>Septa:</b>	Aluminum Septa (additional sealing by TPF O-ring)	PTFE virginal, 0,25mm (additional sealing by TPF O-ring)
<b>Hardness:</b>		53° shore A
<b>Thickness:</b>	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



## 5.4 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.

The vials are preferentially used on instruments of the following manufacturers: Agilent, CTC, DANI, Dionex, Jasco, Shimadzu, Spark, Thermo Scientific, Varian, VWR (Merck®)/Hitachi, Waters®, etc.!



#### The Universal Autosampler Vial

- Universally usable vials for almost all autosamplers, even for those with robotic handling.
- Vials can also be crimped with a standard 11mm Aluminum Crimp Seal, as the two snapping lips have the same height as a crimp neck

### 6.1 Snap Ring Vials ND11, wide opening



### 6.1.3 Micro-Inserts for Vials with wide opening



SR 11 0200	SR 11 0201	SR 11 1037	SR 11 1037	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
<b>SILANIZED SR 11 0200s</b>	<b>SILANIZED SR 11 0201s</b>	<b>SILANIZED SR 11 1037s</b>	<b>SILANIZED SR 11 0202s</b>	<b>SILANIZED ME 06 0218s</b>	<b>SILANIZED ME 06 0361s</b>	<b>SILANIZED ME 06 0362s</b>	<b>SILANIZED ME 06 0232s</b>
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			

### 6.1.2 Snap Ring Mikroliter Vials ND11

Coming soon!

Coming soon!



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, with small micro-insert	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	Snap Ring Vial with integrated 0,3ml Micro-Insert, 32 x 11,6mm, clear glass, (amber glass) 1. hydrol. class, with wide micro-insert	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 widel micro-insert	1,1ml Mikroliter Snap Ring Vial 32 x 11,6mm clear glass, (amber glass) 1.hydrol. class, with solid glass bottom	1,1ml Microliter Snap Ring Vial 32 x 11,6mm clear glass, (amber glass) 1.hydrol. class, with rounded glass bottom	0,3ml PP Snap Ring Micro-Vial, transparent, 32 x 11,6mm	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
<b>"Base Bond"</b>	<b>"Base Bond"</b>	<b>"Base Bond"</b>	<b>"Base Bond"</b>					
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	100 pcs. per PP-Box	100 per PE-Bag



## 6.2 PE Snap Ring Seals ND11

- Snap Caps in the design of an aluminum crimp cap; therefore also suitable for robots
- Fast and easy to close and open
- Snap ring vials ND11 can alternatively be closed with aluminum crimp seals ND11
- In standard snap ring caps are in transparent and blue available!
- Further colored snap ring seals upon request

### 6.2.1 PE Snap Ring Seals ND11, with transparent cap



Art. No.	SN 11 0518	SN 11 0800	SN 11 0171	SN 11 0168	SN 11 0170	SN 11 0911	SC 11 1194
Cap:	PE snap ring cap, transparent, 6mm hole						PE Cap
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
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	1,3mm	1,0mm	1,0mm	
100 pcs. per PE-Bag							

### 6.2.2 PE Snap Ring Seals ND11, with blue cap



Art. No.	SN 11 0519	SN 11 0801	SN 11 0706	SN 11 0520	SN 11 0521	SN 11 0853
Cap:	PE snap ring cap, blue, 6mm hole					
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	1,3mm	1,0mm	1,0mm
100 pcs. per PE-Bag						

## 6.3 Septa 10,5mm for Snap Ring Seals ND11



Art. No.	SE 11 0513	SE 11 0515	SE 11 0514	SE 11 0516
Septa:	Natural Rubber red-range/TEF 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	55° shore A
Thickness:	1,0mm	1,3mm	1,0mm	1,0mm
1.000 pieces				

Further septa and PE Snap Ring Seals ND11 in other colours available on request!



The vials are preferentially used on instruments of the following manufacturers: Dionex, Shimadzu, Spark, Varian, VWR (Merck®)/ Hitachi, Waters® (Wisp 48 Position Carousel), etc.

- 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 ceme/ 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	1,0mm
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	1,6mm	1,5mm
100 pcs. per PE-Bag			

## 7.4 Septa 12mm

- Further septa made of other materials and/or available in other thicknesses!



Art. No.	SE 12 0100	SE 12 0481	SE 12 0482	SE 12 0485	SE 12 0486	SE 12 0460
Septa	PTFE virginal	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	1,0mm	1,3mm	1,3mm	1,0mm	1,0mm

1.000 pieces pro 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

- Pre-screwed vials reduce the risk of contamination of the vials in the laboratory. Furthermore, special applications (e.g. in the tobacco industry) may require a pre-sealed vial.



## 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 SC, black, closed top				
Septa:	Natural Rubber redorange/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 pieces pro PE-Beutel

## 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	FK 08 0563	FK 08 0564	ME 05 0540
1ml Shell Vial, 35 x 7.8mm, clear glass; 6mm PE Plug, transparent	1ml Shell Vial, 40 x 8.2mm, clear glass; 8mm PE Plug, transparent (without insertion barrier)	1ml Shell Vial, 40 x 8.2mm, amber glass; 8mm PE Plug, transparent (without insertion barrier)	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	FK 11 0568	ME 06 0218	ME 06 0361	ME 06 0362
2ml Shell Vial, 31.5 x 11.6mm, clear glass; 12mm PE Plug, transparent	2ml Shell Vial, 31.5 x 11.6mm, amber glass; 12mm PE Plug, transparent	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
100 pcs. per PP-Box		10 x100 pieces per PP-Box		

### 9.3 Shell Vials 4ml and appropriate Micro-Insert



FK 15 0569	FK 15 0570	ME 06 0541
4ml Shell Vial, 44.6 x 14.65mm, clear glass; 15mm PE Plug, transparent	4ml Shell Vial, 44.6 x 14.65mm, amber glass; 15mm PE Plug, transparent	0,3ml Micro-Insert, 43,45 x 6mm, 1st hydrol. class, 13mm top
100 pcs. per PP-Box		10 x100 pieces per PP-Box

## 10. Snap Cap Vials ND18 + ND22

- Easy to handle and inexpensive storage vials with push-on Snap Caps
- Caps and Vials separately obtainable.
- Quickly and easily to reopen and reseal.
- No liners are required in the cap.
- For storage of powders and solids.



### 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, 3st hydrol. class	10ml Snap Cap Vial ND18, 50 x 22mm, clear glass, 3st hydrol. class	15ml Snap Cap Vial ND22, 48 x 26mm, clear glass, 3st hydrol. class	25ml Snap Cap Vial ND22, 65 x 26mm, clear glass, 3st 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	

### 10.3 2in1Kits (snap cap vial including cap)

Art. No.	KP 18 1273	KP 22 1431	KP 22 1432	KP 22 1397	KP 28 1398	KP 28 1367	KP 28 1377
Kit Descr.	2in1 Kit: 3ml Snap Cap Vial, 30x19mm, clear glass, 1. hydrol.class; incl. Snap Cap ND18	2in1 Kit: 20ml Snap Cap Vial, 70x25mm, clear glass, 3st hydrol. class, incl. Snap Cap ND22	2in1 Kit: 20ml Snap Cap Vial, 55x27mm, clear glass, 3st hydrol. class, incl. Snap Cap ND22	2in1 Kit: 30ml S Snap Cap Vial, , 75x28mm, clear glass, 1. hydrol. class; incl. Snap Cap ND22	2in1 Kit: 40ml Snap Cap Vial, 80x30mm, clear glass, 3st hydrol. class, incl. Snap Cap ND28	2in1 Kit: 40ml Snap Cap Vial, 80x30mm, clear glass, 3st hydrol. class, incl. Snap Cap ND28	2in1 Kit: 100ml Snap Cap Vial, 145x34mm, clear glass, 3st hydrol. class, incl. 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	100 pcs. per cardboard box



## 11. Headspace Precision Thread ND18

- 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 0233	HS 18 0348	HS 18 0234	HS 18 1183	HS 18 0349
10ml Precision Thread Vial ND18, 46 x 22.5mm, clear glass, 1st hydrol. class, rounded bottom	10ml Precision Thread Vial ND18, 46 x 22.5mm, amber glass, 1st hydrol. class, rounded bottom	20ml Precision Thread Vial ND18, 75,5 x 22,5mm, clear glass, 1st hydrol. class, rounded bottom	20ml Precision Thread Vial ND18, 75,5 x 22,5mm, clear glass, 1st hydrol. class, label + filling lines rounded bottom	20ml Precision Thread Vial ND18, 75,5 x 22,5mm, Amber glass, 1st hydrol. class, rounded bottom
R. vol. 800 µl	R. vol. 800 µl	R. vol. 800 µl	R. vol. 800 µl	R. vol. 800 µl
100 pcs. per PP-Box				

### 11.2 Magnetic Universal Screw Seals ND18 for Precision Thread Vials



Art. No.	SV 18 1287	SV 18 0575	SV 18 0177	SV 18 0854	SV 18 0576	SV 18 0920	SV 18 0960
Cap:	Magnetic Screw Cap silver, 8mm centre hole						
Septa:	Silicone blue/PTFE clear (moulded septa)	Silicone blue transparent/PTFE white	Silicone white/PTFE blue	Silicone white/Aluminum foil silver	Silicone white/PTFE red	HighTEMP Septa (HTS), Silicone dark-red/PTFE	Butyl red/PTFE grey
Hardness	40° shore A	45° shore A	55° shore A	50° shore A	45° shore A	45° shore A	55° shore A
Thickness:	3mm	1,3mm	1,5mm	1,3mm	1,3mm	3,0mm	1,6mm
100 pcs. per PE-Bag							

### 11.3 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 0584
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 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



Art. No.:	HS 20 0238 HS 20 1435*	HS 20 0239 HS 20 0352	HS 20 0207	HS 18 0931	HS 20 0354	HS 20 0355
Descr.:	5ml Headspace Vial, 38.2 x 22mm, clear glass, 1st hydrol. class (* DIN Crimp Neck)	20ml Headspace Vial, 75.5 x 23mm, clear glass, 1st hydrol. class, (amber glass)	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	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
Features:	HS-Crimp Neck, rounded bottom	HS-Crimp Neck, rounded bottom	HS-Crimp Neck, rounded bottom	Screw Neck ND18, rounded bottom	DIN Crimp Neck, flat bottom	DIN Crimp Neck, flat bottom
Fill Cap.:	9,4ml	22ml	22ml	21,2ml	8ml	12,2ml
Res. Vol.:	800µl	800µl	800µl	800µl	800µl	800µl
Useable on:	PerkinElmer	PerkinElmer, Tekmar	PerkinElmer, Tekmar	PerkinElmer	Varian	Varian

100 pcs. per PP-Box



Art. No.:	HS 20 0235	HS 20 1672	HS 20 0236	HS 20 0302 HS 20 0350	HS 20 0237 HS 20 0351	HS 20 0353 HS 20 0732	HS 20 0996
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 Vial HS 20 1680)	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 (amber glass)	20ml Headspace Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class (amber glass)	20ml SPME Vial, 75.5 x 22.5mm, clear glass, 1st hydrol. class (amber glass)	5ml Headspace Vial, 38,2 x 21,7mm, clear glass, 1st hydrol. class
Features:	DIN Crimp Neck, flat bottom	HS-Crimp Neck, flat bottom	DIN Crimp Neck, flat bottom	DIN Crimp Neck, rounded bottom	DIN Crimp Neck, rounded bottom	Special Crimp Neck, rounded bottom	HS-Crimp Neck, flat bottom
Fill Cap.:	11,7ml	21,2ml	21,2ml	12,3ml	20,9ml	21,2ml	9,4ml
Res. Vol.:	800µl	800µl	800µl	800µl	800µl	800µl	800µl
Useable on:	Agilent, Carlo Erba, Dani, Fisons,	Agilent, Carlo Erba, Dani, Fisons,	Agilent, Carlo Erba, Dani, Fisons,	CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS)	CTC PAL (Varian, Gerstel, Atas, Shimadzu, TriPlus HS)	SPME Flasche für CTC PAL	Metrohm

## 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



Artikel	HS 18 0931
Description:	20ml Headspace-Vial 75.5 x 23mm, clear glass, 1st hydrol. class
Filling Capacity:	21,2ml
Residual Volume:	800µl
100 pcs. per PP-Box	

Compatibility Overview		
PerkinElmer	HS40/ HS100/ HS101TurboMatrix HS16/ HS40/ HS40XL/ S40Trap/HS110/ HS110Trap	x
Spark	Alias	x
Teledyne Tekmar	7000/ 7000HT/7050/ HT3	x
Thermo Scientific	Trace 1300 Series	x

### 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!

## 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.

## 12.3 Crimp Seals ND20

### 12.3.1 Butyl Seals

- Temperature resistant from  $-40^{\circ}\text{C}$  to  $120^{\circ}\text{C}$
- Due to missing PTFE lamination only suitable for uncritical analyses
- Inexpensive combination closure
- The moulded septa is purer and denser compared to a conventional punching sept



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	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

- Temperature resistant from  $-40^{\circ}\text{C}$  to  $120^{\circ}\text{C}$
- Complete PTFE lamination extends the range of applications to include more critical analysis



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	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								

### 12.3.3 Pharma-Fix Seals (Butyl/PTFE)

- **Special Septa:** Special, moulded Butyl/PTFE liner that is only laminated with PTFE in the contact area towards the sample. On the glass rims the elastic Butyl achieves a very tight seal.
- Temperature resistant from  $-40^{\circ}\text{C}$  up to  $120^{\circ}\text{C}$ .



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	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								



Crimpers and decapper you will find on pages





### 12.3.8 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	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							

### 12.3.9 HTS Silicone dark-red/PTFE Seals

- 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



### 12.3.10 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/Aluminium 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	

## 12.4 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
<b>Septa:</b>	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
<b>Hardness:</b>	55° shore A	50° shore A	50° shore A	45° shore A	45° shore A	55° shore A	50° shore A
<b>Thickness:</b>	3,0mm	3,0mm	3,0mm	3,0mm	3,0mm	1,5mm	3,0mm
1.000 pcs. per PE-Bag							



Art. No.	SE 20 0093	SE 20 0639	SE 20 0906	SE 20 0724	SE 20 0917	SE 20 0608	SE 20 0445
<b>Septa:</b>	Viton 1A, black	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
<b>Hardness:</b>	70° shore A	45° shore A	45° shore A	38° shore A	45° shore A	37° shore A	37° shore A
<b>Thickness:</b>	1,0mm	3,0mm	3,2mm	3,0mm	3,0mm		
1.000 pieces 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
<b>Cap:</b>		20mm PE-Cap, transparent, cap height 8,4mm, 4,3mm hole			20mm PE-Cap, transparent, cap height 9,1mm, 4,3mm hole		PE-Cap, transparent, cap height 9,1mm, 6mm hole
<b>Septa:</b>	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
<b>Hardness:</b>	60° shore A	55° shore A	45° shore A	60° shore A	55° shore A	45° shore A	45° shore A
<b>Thickness:</b>	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
<b>Septa:</b>	Natural Rubber red-orange/TEF transparent	Butyl cream/PTFE grey	Silicone transparent blue/PTFE white	Silicone transparent blue/PTFE white cross-slit
<b>Hardness:</b>	60° shore A	55° shore A	45° shore A	45° shore A
<b>Thickness:</b>	1,3mm	1,3mm	1,3mm	1,3mm
1.000 pcs per PE-Bag				

13. Screw Neck ND24 (EPA)

The vials are preferentially used on instruments of the following manufacturers: Agilent, Dionex, Shimadzu, Tekmar, Thermo Scientific, Varian

- Broad range of EPA Vials in clear and amber glass manufactured out of Schott Fiolax tubings
- Packed in a certified class 100,000 clean room
- Volumes of 20ml, 30ml, 40ml and 60ml available.
- Optional: All types of EPA Vials can be delivered against a small surcharge with a certificate of cleanliness that might especially be needed for TOC analysis.
- New: EPA vials can also be pre-sealed with a screw cap of your choice



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 Capacity	23,3	23,3	31,1	31,1	42,9	42,9	64,4	64,4
Residual Volume	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

- Ready to use combination seals; no timeconsuming and "tricky" assembly.
- Available as closed top screw seals or with centre hole in white 24-400 caps.
- Broad variety of different septa materials for almost all applications.
- Also UltraBond Seals ND24 are offered, i.e. that the cap and the Silicone/PTFE liner of these seals form an inseparable unit avoiding the problem of liners falling out of the cap. This 100% firm fit of the liner is achieved by a patented process that requires no adhesives, but instead changes the molecular structure of both components to achieve the fixation.
- We optionally supply our EPA screw caps with a TOC cleanliness certificate.

#### 13.2.1 PP Screw Seals ND24, with hole



Art. No.	SV 24 0552	SV 24 1720	SV 24 0175 <i>ZeroPeak Septa</i>	SV 24 0904	SV 24 0956	SV 24 0174 <i>UltraBond</i>
Cap:	PP Screw Cap, white, 15mm hole					
Septa:	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, <b>cross-slit</b>	Silicone nature /PTFE beige (EPA Quality)
Hardness	55° shore A	45° shore A	38° shore A	50° shore A	45° shore A	45° shore A
Thickness:	2,5mm	3,2mm	3,0mm	3,0mm	3,2mm	3,2mm
100 pcs. per PE-Bag						

#### 13.2.2 PP Screw Seals ND24, closed top



Art. No.	SV 24 0553	SV 24 1721	SV 24 0291 <i>ZeroPeak Septa</i>	SV 24 0905	SV 24 1323	SV 24 0292 <i>UltraBond</i>
Cap:	PP Schraubkappe, weiß, geschlossen					
Septa:	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	Silicone nature /PTFE beige (EPA Quality)
Hardness	55° shore A	45° shore A	38° shore A	50° shore A	48° shore A	45° shore A
Thickness:	2,5mm	3,2mm	3,0mm	3,0mm	3,0mm	3,2mm
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 <b>cross-slit</b> (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, 14mm 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

- Easy handling and transportation of sample vials
- Filling visible because of transparent acrylic material.
- Stable standing position because of solid construction
- Stack stability because of silicone base.



### 14.1 Vial Racks



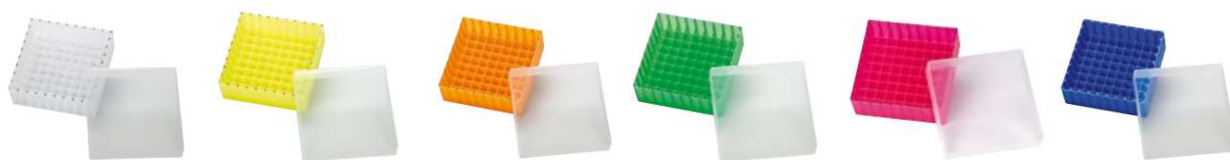
Art. No.	VR 12 1675	VR 15 1676
Description:	PP Vial-Rack, (200 x 105 x 17mm), for 1.5ml vials, 50 cavities, blue, stackable	PP Vial-Rack, (230 x 117 x 28mm), for 4ml vials, 50 cavities, blue, stackable
1 piece per PE-Bag		

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



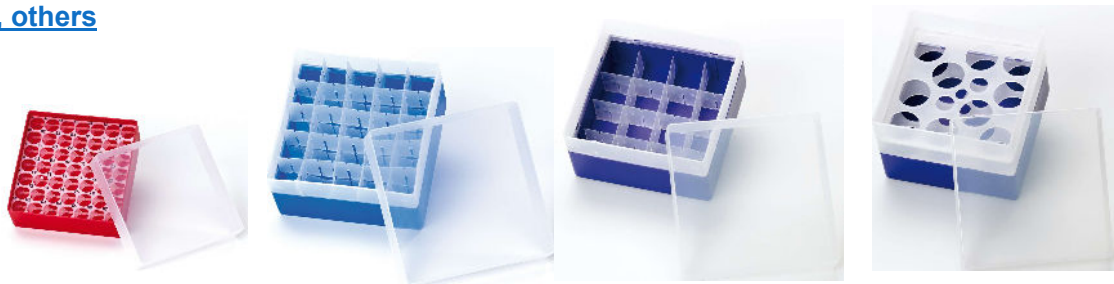
Art. No.	VR 12 1730	VR 12 1728	VR 12 1726	VR 12 1729	VR 12 1727	VR 12 1725
Description:	PP Storage Box for 1,5ml (1,8ml, 2ml) vials or 2ml shell vials, with cover (130 x 130 x 45mm), 81 cavities with alphanumeric coding of all 4 margins as well as the cavities at the bottom					
1 piece per PE-Bag						

### 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 piece 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 piece per PE-Bag				

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

HPLC certified, non sterile disposable syringes made of solvent robust polypropylene for all syringe filter applications.

- Syringes manufactured according to ISO 13485 (Medical devices)
- Luer Lock manufactured according to ISO 594-2/DIN EN 1707
- Two-part, all-plastic construction made of a chemically resistant, inert polypropylene.
- No rubber plunger seals or silicone lubricants that may cause sample contamination.
- Free of latex, free of plasticizers, free of PVC.
- Safe functional back-stop feature.
- Easy to read permanent graduations.
- All Luer Lock syringes have centered tips.
- Available with Luer Lock and Luer Slip connections.



### 15.1 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 Plastic Disposable Syringes, non-sterile, with Luer-Slip



Art. No.	ES 02 1222	ES 05 1223	ES 10 1224	ES 20 1225
Description:	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

- 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: 1,77cm<sup>2</sup>
- 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						

## 16.2 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: 490mm<sup>2</sup>
- 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: 707mm<sup>2</sup>
- 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

## 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 Screw 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
Description:	13mm Injection Stopper, Brombutyl, grey	13mm Freeze Drying Stopper, Brombutyl, grey
Hardness:	45° shore A	
Pack:	1.000 pieces per PE-Bag	3.000 pieces per PE-Bag

### 18.3 Crimp Caps ND13



Art. No.	BK 13 0628	BK 13 0303	FO 13 0607
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 pieces 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	13mm Aluminium Crimp cap, silver lacquered, centre tear-off, Butyl red/PTFE grey, 55° shore A, 1.6mm
100 pieces per PE-Bag		53

## 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



Art. No.	RR 20 0400	RR 20 0316	RR 20 0492	RR 20 0549
<b>Description:</b>	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
<b>Dimension:</b>	40 x 22mm	45 x 24mm	55 x 30mm	75 x 30mm
<b>Content:</b>	6ml	10ml	20ml	30ml
<b>Pack</b>	186 pcs. per PP-Box	154 pcs. per PP-Box	91 pcs. per PP-Box	upon request

### 19.2 Injection Vial ND20, amber glass



Art. No.	RR 20 0399	RR 20 0251	RR 20 0548	RR 20 0550
<b>Description:</b>	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
<b>Dimension:</b>	40 x 22mm	45 x 24mm	55 x 30mm	75 x 30mm
<b>Content:</b>	6ml	10ml	20ml	30ml
<b>Pack</b>	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
<b>Description:</b>	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
<b>Dimension:</b>	58 x 32mm	62 x 36mm	73 x 42,5mm	94,5 x 51,6mm
<b>Content:</b>	20ml	30ml	50ml	100ml
<b>Pack</b>	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
<b>Description:</b>	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
<b>Dimension:</b>	58 x 32mm	62 x 36mm	73 x 42,5mm	94,5 x 51,6mm
<b>Content:</b>	20ml	30ml	50ml	100ml
<b>Pack</b>	252 pcs.per PE-foil	90 pcs.per PE-foil	90 pcs.per PE-foil	88 pcs.per PE-foil

## 19.5 Injection Stoppers ND20

- Suitable injection stoppers for injection vials made of tubular and smelting glass ND20



Art. No.	SE 20 0250	SE 20 0325	SE 20 0210	SE 20 0445
Description:	20mm Injection stopper, red-brown, Brombutyl, 48° Shore A	20mm Injection stopper, grey, Chlorbutyl, 48° Shore A	20mm Butyl stopper, red-brown, Brombutyl, 45° shore A	20mm Butyl stopper, grey, Brombutyl, 37° shore A
Pack	2.000 pcs. per PE-Bag	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 0107	SE 20 0608	SE 20 0143
Description:	20mm Freeze Drying Plug, light grey, Brombutyl	20mm Injection stopper, Butyl/PTFE, grey, 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	5.000 pcs. per PE-Bag	1.000 pcs. per PE-Bag	1.000 pcs. per PE-Bag

## 19.6 Aluminum Crimp Cap ND20

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

- Tamper-evident hole caps; tear-off plastic centre part prevents unauthorized manipulation of the samples
- Easier, faster and safer to open than conventional centre tear-off caps with aluminum centre part
- Available from stock in various colors to enable sample differentiation



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



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



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

## 19.7 Aluminum Crimp Caps ND20 (Cont.)

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

- Tamper-proof caps with holes; tear-off aluminum centre part prevents unwanted manipulation of the samples
- Available from stock in various colors to enable sample differentiation



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 pieces per PE-Bag					

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

- Tamper-evident cap, which can be open completely by using a tear-off part and predetermined breaking lines on the side



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 pieces per PE-Bag					

### 19.7.3 Flip Tear-Up Caps ND20

- Tamper-evident cap, which can be open completely by using a tear-off part and predetermined breaking lines on the side



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 pieces 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



Art. No.	RR 32 0626	RR 32 0414	RR 32 0713	RR 32 1048
<b>Description:</b>	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
<b>Dimension:</b>	104 x 49mm	136 x 66mm	177 x 78mm	230 x 95mm
<b>Content:</b>	100ml	250ml	500ml	1000ml
<b>Pack</b>	99 pcs. per tray	35 pcs. per tray	35 pcs. per tray	1 pcs. per box

### 20.2 Infusion Vial ND32, amber glass



Art. No.	RR 32 1178	RR 32 1443	RR 32 1161
<b>Description:</b>	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
<b>Dimension:</b>	104 x 49mm	136 x 66mm	177 x 78mm
<b>Content:</b>	100ml	250ml	500ml
<b>Pack</b>	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 pieces 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 Crimper

- Easy and convenient handling
- Chemically resistant surface finish especially designed for the application in labs
- Hardened crimping jaws made of a special alloy that guarantees long life
- Adjustable in crimping pressure limitation by a screw in the handle
- Additionally all Chroma Globe Crimping Tools are adjustable in crimping height by screwing up or down the pressure block in the crimping head with a hexagon key.
- 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. Crimper (Cont.)

### 22.1.3 Crimper for Combination Caps

Art. No.	CR 13 0545	Cap Type (exemplary)
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 28mm "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			



## 22.2 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				
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			
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					
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. 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)
Descripti on:	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				



## 22.3 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					



## 22.4 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

- Crimping and decapping tool, operated by compressed air (6.2bar = 90psi minimum net pressure)
- Easy handling**; just by pushing the button the vial is crimped or decapped
- 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
- Adjustable, constant and **reproducible crimping pressure**



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

## 22.5.2 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							

## 22.6 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 0729
Description:	Vertical pneumatic crimping machine; 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

- Screw Neck Vials for storage purposes made out of 1st hydrol. class glass.
- Vials with different volumes are available.
- Clear and amber Vials.
- Seals with different septa materials.



### 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 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 22.7mm, clear 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						



## 23.1 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
<b>Thread 8-425</b>				
<b>Cap:</b>	Polypropylen Screw Cap, black, closed top			
<b>Septa</b>	Natural Rubber red orange/ TEF transparent	RedRubber/ PTFE beige	Butyl cream/ PTFE grey	Silicone white/ PTFE red
<b>Hardness:</b>	60° shore A	45° shore A	55° shore A	45° shore A
<b>Thickness:</b>	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
<b>Thread 13-425</b>				
<b>Cap:</b>	Polypropylen Screw Cap, black, closed top			
<b>Septa</b>	Natural Rubber red orange/ TEF transparent	Butyl cream/ PTFE grey	Silicone white/ PTFE red	Butyl dark-grey
<b>Hardness:</b>	60° shore A	55° shore A	55° shore A	48° shore A
<b>Thickness:</b>	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
<b>Thread 15-425</b>					
<b>Cap:</b>	Polypropylen Screw Cap, black, closed top				
<b>Septa</b>	Natural Rubber red orange/ TEF transparent	Butyl red/ PTFE grey	Viton 1A, black	Silicone white/ Aluminum foil silver	Butyl dark-grey
<b>Hardness:</b>	60° shore A	55° shore A	70° shore A	50° shore A	48° shore A
<b>Thickness:</b>	1,3mm	1,6mm	1,0mm	1,3mm	2mm
100 pcs. per PE-Bag					

**23.1.2 PP Screw Seals for Storage Vials (Cont.)**

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



Art. No.	SV 20 1017	SV 20 1021	SV 20 1330
<b>Thread 20-400</b>			
<b>Cap:</b>	Polypropylen Screw Cap, white, closed top		
<b>Septa</b>	Natural Rubber red-orange/ TEF transparent	Butyl cream/ PTFE grey	Silicone white/ PTFE red
<b>Hardness:</b>	60° shore A	55° shore A	45° shore A
<b>Thickness:</b>	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
<b>Thread 24-400</b>				
<b>Cap:</b>	Polypropylen Screw Cap, white, closed top			
<b>Septa</b>	Butyl red/PTFE grey	Silicone white/ Aluminum foil silver	Butyl dark-grey	Silicon nature/ PTFE beige (EPA Qualität)
<b>Hardness:</b>	55° shore A	50° shore A	48° shore A	45° shore A
<b>Thickness:</b>	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:	<b>Agilent:</b> 7673, 7683 <b>PerkinElmer:</b> Waste + Wash Vial	<b>Thermo Finnigan:</b> AS2000, AS300, A200S	<b>Varian:</b> 8400, 8410	<b>Varian:</b> CTC PAL <b>Shimadzu:</b> 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

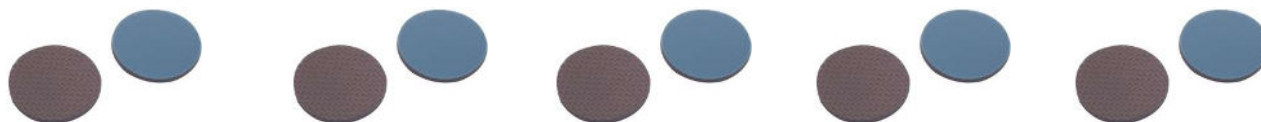


### 25.1 Septa for Schott Screw Caps Silicone white/PTFE beige



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 <b>NIR measurements</b>	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 Stück

### 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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