

PERMAX

FORNITURE LABORATORI SCIENTIFICI

Information Brochure



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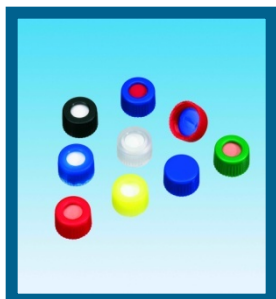
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Seals

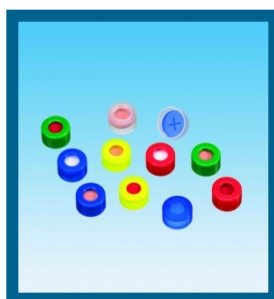
Different closure techniques and/or application requirements necessitate certain caps. In order to visualize the different types of caps, please see the photos below:



Screw Caps
(open top/closed top)



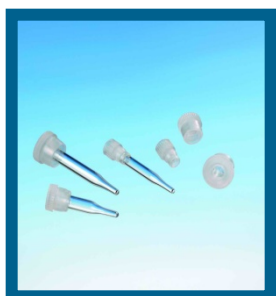
Short Thread Caps
(open top/closed top)



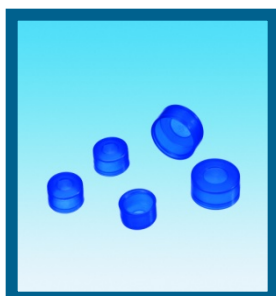
Snap Ring Caps
(only as open top)



**Various UltraBond
Seals ND9+ND24**



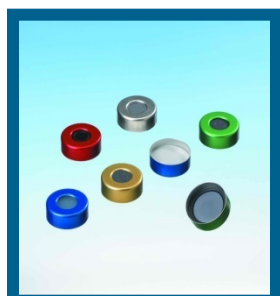
PE-Plugs
(for Shell Vials;
Micro-Inserts can be
installed in the plug)



PE Push-On Caps
ND8 + ND11



PE Caps
(for Crimp Necks ND8,
ND11 + ND20)



Aluminium Caps
centre hole



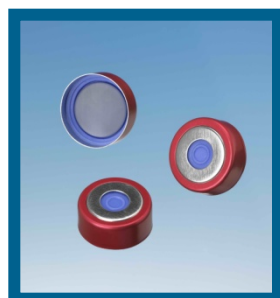
**Magnetic
Crimp Caps**
(5mm centre hole)



**Magnetic
Crimp Caps**
(8mm centre hole)



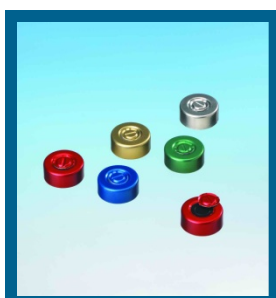
Magnetic Screw Caps
(8mm centre hole/closed top)



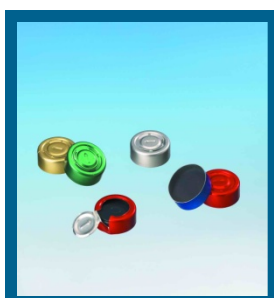
**Magnetic Bimetal
Crimp Caps**
8mm centre hole



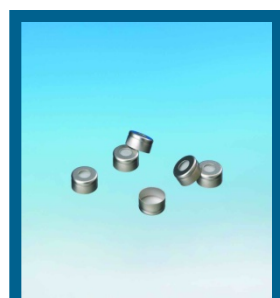
Headspace Caps
(Pressure Release Caps)



Centre Tear Off Caps



Complete Tear Off Caps



**Crimp Caps with
roll groove**

Septa

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?
↓	↓		↓	↓	↓
good resealability properties necessary	-40°C up to 120°C	-60°C up to 200°C	soft and thin septa required	Slitted liner as penetration aid (HPLC)	very clean liner required
↓	↓	↓	↓	↓	↓
Natural Rubber/TEF	Natural Rubber/TEF; Butyl/PTFE	Silicone/PTFE	e.g. Silicone/PTFE	e.g. 08 02 0039 (page 20-chapter 2.4)	UltraClean Silicone/PTFE septa
					Low coring?
					↓
					Both sided PTFE laminated liners required
					↓
					PTFE/Silicone/PTFE PTFE/Butyl/PTFE

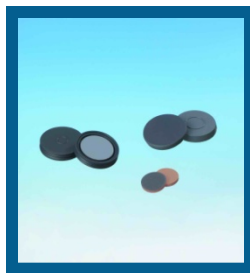
In order to visualize the most common liners on the market, please see photos below. However, please note that colours of the liners are no exact indication for the identification of a liner material.



Natural Rubber/TEF



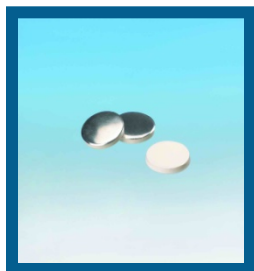
Butyl



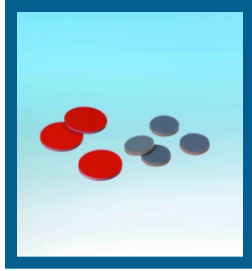
Butyl/PTFE



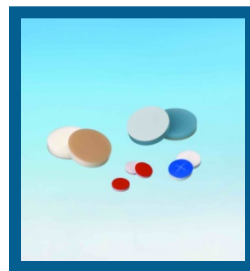
Pharma-Fix-Septa
Butyl/PTFE



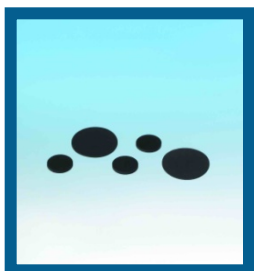
Silicone
Aluminium Foil



PTFE/Silicone/PTFE
PTFE/Butyl/PTFE



Silicone/PTFE



Viton



PTFE



Septa for SCHOTT
Screw Caps



PTFE/EPDM/PTFE

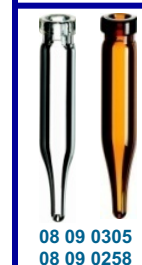
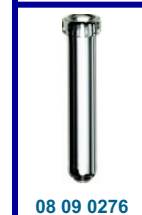
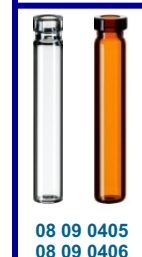
1. Crimp Neck Vials and Seals ND8

Crimp Neck Vials and Micro-Vials ND8

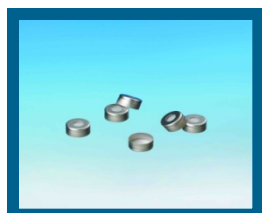
The vials are preferentially used on instruments of the following manufacturers: Agilent, Beckman, Carlo Erba, CTC, Fisons, Perkin Elmer, Shimadzu, Thermo, VWR (Merck®)/Hitachi, etc.



Art. No.	Description	P-Unit
08 09 0284	0.8ml Clear glass, flat bottom, 30 x 8,2mm	100 pcs.
08.09 0405	0.7ml Clear glass, flat bottom, 40 x 7mm	10 x 100 pcs.
08 09 0406	0.7ml Amber glass, flat bottom, 40 x 7mm	10 x 100 pcs.
08 09 0276	0.3ml Clear glass, round bottom, 31.5 x 5.5mm	10 x 100 pcs.
08 09 0606	0.3ml Clear glass, conical, 31.5 x 5.5mm	10 x 100 pcs.
08 09 0845	1.2ml Clear glass, flat bottom, 40 x 8.2mm	100 pcs.
08 09 0953	1.2ml Amber glass, flat bottom, 40 x 8.2mm	100 pcs.
08 09 0305	0.7ml Clear glass, conical, 40 x 7mm	10 x 100 pcs.
08 09 0258	0.7ml Amber glass, conical, 40 x 7mm	10 x 100 pcs.
08 09 1080	0.4ml Amber glass, conical, 30 x 7mm	10 x 100 pcs.

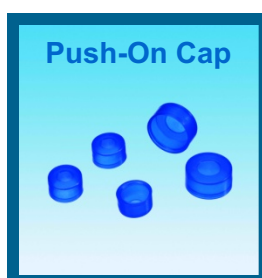


Aluminium Crimp Seals ND8, clear lacq., 4mm hole, assembled with



Art. Nr.	Septa Description	P-Unit
08 03 0451	Natural Rubber red-orange/TEF transparent, 1.0mm, 60° shore A AGILENT Quality	100 pcs..
08 03 1935	Natural Rubber red-orange / TEF transparent, 1.0mm, 60° shore A	100 pcs.
08 03 2042	RedRubber/beige, 45° shore A, 1.0mm	
08 03 0249	Silicone white/PTFE red, 1.3mm, 45° shore A	100 pcs.
08 03 0113	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
08 03 1156	Silicone white/PTFE red, slitted, 1.3mm, 45° shore A	100 pcs.
08 03 0268	PTFE virginal, 0.25mm, 53° shore D	100 pcs.

Other Combination Seals for Crimp Neck ND8



Art. No.	Septa Description	PE-Bag
08 08 1675	PE Push-On Cap blue, with thinned penetration area	100 pcs.
09 15 0753	PE Cap, transp., 9 x 5.9mm, 4mm centre hole, NK/TEF transparent, 1.0mm, 60° shore A	100 pcs.
09 15 0756	PE Cap, transp., 9 x 5.9mm, 4mm centre hole, Silicone white/PTFE red, 1.3mm, 45° shore A	100 pcs.

2. Crimp Neck Vials and Seals ND11

Crimp Neck Vials ND11, wide opening, and appropriate Micro-Inserts

The vials are preferentially used on instruments of the following manufacturers: Agilent, Carlo Erba, CTC, Dani, Fisons, Gerstel, Jasco, Perkin Elmer, Shimadzu, Spark, Thermo, Varian, etc

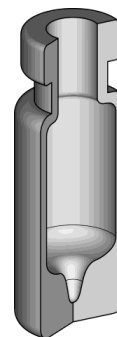


Art. No.	Description	P-Unit
11 09 0356	1.5ml Clear glass, Crimp Neck ND11, 32 x 11.6mm	100 pcs.
11 09 0476	1.5ml Clear glass, Crimp Neck ND11, with label and filling lines, 32 x 11.6mm	100 pcs.
11 09 0477	1.5ml Amber glass, Crimp Neck ND11, with label and filling lines, 32 x 11.6mm	100 pcs.
11 09 0619	1.1ml Clear glass, Crimp Neck ND11, with 15µl inner cone in the Bottom, 32 x 11.6mm	100 pcs.
11 09 0921	Crimp Neck Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, clear glass, 1st hydrolytic class, label and filling lines	100 pcs.
11 09 1956	Crimp Neck Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrolytic class, label and filling lines	100 pcs.
11 14 1190	TopSert (trade mark): TPX Snap Ring Vial, 32 x 11.6mm, with integrated 0.2ml Glass Micro-Insert, 15mm top	100 pcs.
11 14 1266	same, but silanized	
11 14 1655	TopSert (trade mark): TPX Short Thread Vial, 32 x 11.6mm, amber, with integrated 0.2ml Glass Micro-Insert, 15mm top	100 pcs.
11 14 1656	same, but silanized	
11 09 0415	1.1ml Crimp Neck Micro-Vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, conical	100 pcs.



Product information Microliter-Vials

- Reactions and concentrations in the vial; no sample transfer necessary
- 15µl volume funnel in the base allows picking up of even smallest sample quantities with the needle
- Precise forming of the interior shape for constant volumes and safe injection
- The solid glass base offers excellent heat transfer during concentration of samples
- Flat bottom ensures trouble-free run in the auto-sampler without need of an adapter
- As Crimp Neck Vial ND11 or Short Thread Vial ND9



Inserts for Crimp Neck Vials ND11



Art. No.	Description	P-Unit
06 09 0357 06 09 1240	0.1ml Clear glass, conical, 15mm top, 31 x 6mm, Same, but silanized	10 x 100 pcs.
06 09 0669	0.1ml Clear glass, conical, 12mm top, 31 x 6mm	10 x 100 pcs.
06 09 0865 06 09 1343	0.1ml Clear glass, conical, With Polymere spring , 29 x 5.7mm Same, but silanized	10 x 100 pcs.
06 09 0866	0.1ml Clear glass, flat bottom, 31 x 6mm	10 x 100 pcs.



11 09 0356



11 09 0476



11 09 0477



11 09 0619



11 09 0921



11 14 1190



11 09 0415

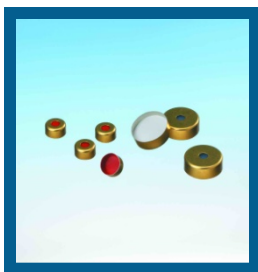
2. Crimp Neck Vials and Seals ND11

Aluminium Crimp Seals ND11, 5,5 mm centre hole assembled with



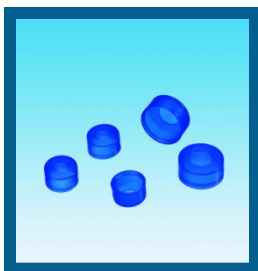
Art. No.	Septa Description	P-Unit
11 03 0209	Natural Rubber red-orange/TEF transparent 1.0mm, 60° shore A (AGILENT Quality)	100
11 03 1875	Red Rubber / PTFE beige, 1.0mm, 45° shore A	100
11 03 0300	Natural Rubber /Butyl red/TEF transparent, 1.0mm, 45° shore A	100
11 03 0900	Natural Rubber red-orange/TEF transparent 1.3mm, 60° shore A	100
11 03 0247	Silicone white/PTFE red, 1.3mm, 45° shore A	100
11 03 0196	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100
11 03 0464	Silicone white/PTFE blue, cross-slitted, 1.5mm, 55° shore A	100
11 03 0339	PTFE virginal, 0.25mm, 53° shore D	100

Magnetic Crimp Seals ND11, gold lacq., 5mm centre hole (for CTC PAL / TriPLUS)



Art. No.	Septa Description	P-Unit
11 03 0319	Silicone white/PTFE red, 1.3mm, 45° shore A	100
11 03 0332	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A,	100

Other Combination Seals ND11



Art. No.	Description	P-Unit
11 08 1676	PE Push-On Cap blue, with thinned penetration area	100
13 15 0553	PE Cap, transp., 13 x 7.5mm, 4.5mm centre hole, Natural Rubber red-orange/TEF transparent, 1.0mm, 60° shore A	100
13 15 0996	PE Cap, transp., 13 x 7.5mm, 4.5mm centre hole , Silicone white/PTFE red, 1.3mm, 45° shore A	100

Septa for 11mm Aluminium Crimp Caps



Art. No.	Septa Description	P-Unit
11 02 0534	11mm Septa, Natural Rubber red-orange/TEF transparent, 60° shore A, 1.0mm	1000
11 02 1876	11mm Septum, RedRubber / PTFE beige, 45° shore A, 1.0mm	1000
11 02 0104	11mm Septa, Silicone white/PTFE red, 45° shore A, 1.3mm	1000
11 02 0140	11mm Septa, Silicone cream/PTFE red, 55° shore A, 1.5mm	1000
11 02 0115	11mm Septa, PTFE red/Silicone white/PTFE red, 45° shore A, 1.0mm	1000
11 02 0446	11mm Septa, Silicone white/PTFE blue, 55° shore A, 1.5mm, cross-slitted	1000
11 02 0176	11,1mm Septum, PTFE virginal, 53° shore D, 0,25mm	1000

3. Screw Neck Vials and Seals ND8

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

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



Art. No.	Description	P-Unit
11 09 0210	1.5ml Clear glass, 8-425 Thread, 32 x 11.6mm	100 pcs.
11 09 0419	1.5ml Clear glass, 8-425 Thread, with label and filling lines, 32 x 11.6mm	100 pcs.
11 09 0259	1.5ml Amber glass, 8-425 Thread, 32 x 11.6mm	100 pcs.
11 09 0382	1.5ml Amber glass, 8-425 Thread, with label and filling lines, 32 x 11.6mm	100 pcs.
11 09 0417	1.1ml Clear glass, 8-425 Thread, conical, 32 x 11.6mm	100 pcs.



11 09 0210



11 09 0419



11 09 0259



11 09 0382



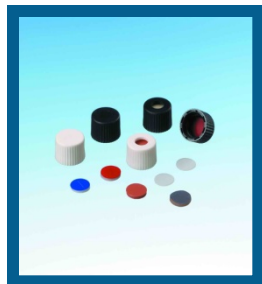
11 09 0417

Inserts for Crimp Neck Vials ND11



Art. No.	Description	P-Unit
05 09 0129	0.1ml Clear glass, conical, 15mm top, 31 x 5mm	10 x 100 pcs.
05 09 1674	0.2ml Clear glass, flat bottom, 31 x 5mm	10 x 100 pcs.
05 09 0968	0.1ml Clear glass, conical, with Polymere spring, 29 x 5mm	10 x 100 pcs.
05 09 0269	0.1ml Clear glass, conical, 9mm top, 31 x 5mm	10 x 100 pcs.
05 09 0279 +	0.05ml Clear glass, conical, 27.5 x 4mm	10 x 100 pcs.
05 13 0426	Metal spring, 36 x 5mm	100 pcs.

PP Screw Seals ND8, black, 8-425 Thread, 5.5mm center hole, assembled with



Art. No.	Septa Description	P-Unit
08 15 0460	Natural Rubber red-orange/TEF transparent, 1.3mm, 60° shore A	100 pcs.
08 15 1965	RedRubber / PTFE beige, 45° shore A, 1.0mm Agilent Quality	100 pcs
08 15 1637	Butyl red/PTFE grey, 1.3mm, 55° shore A	100 pcs.
08 15 0293	Silicone white/PTFE red, 1.3mm, 45° shore A	100 pcs.
08 15 0294	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
08 15 0427	Silicone cream/PTFE red, 55° shore A, 1.5mm	100 pcs.

3in1 Kits for VWR (Merck)/Hitachi Autosampler

Art. No.	Vial No.	Cap No.	Septa No.
11 23 1047	11 09 0210 1.5ml Clear glass	08 08 0027 Screw Cap, black, centre hole	08 02 0039 Silicone white/PTFE blue, 55° shore A, 0.9mm, slitted
11 23 1145	11 09 0210 1.5ml Clear glass	08 15 0460 PP Screw Cap, black, centre hole, Natural Rubber red-orange/TEF transparent, 60° shore A, 1.3mm	

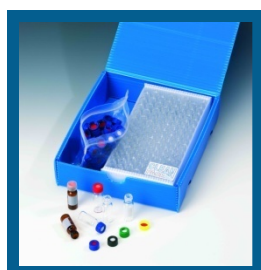
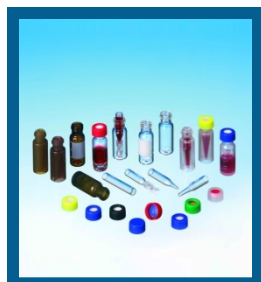
2in1 Kits for Varian Autosampler

Art. No.	Vial No.	Seal No.
11 23 1046	11 09 0210 1.5ml Clear glass	08 15 0293 PP Screw Cap, black, centre hole, Silicone white/PTFE red, 45° shore A, 1.3mm
11 23 1098	11 09 0259 1.5ml Amber glass	08 15 0293 PP Screw Cap, black, centre hole, Silicone white/PTFE red, 45° shore A, 1.3mm

4. Short Thread Vials and Seals ND9

Short Thread Vials, wide opening, 9-425 Thread

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



Vials and Seals may also be delivered as a 2in1 KIT

Art. No.	Description	P-Unit
11 09 0500 11 09 1241	1.5ml Clear glass, Short Thread, 9-425, 32 x 11.6 same, but silanized	100 pcs.
11 09 0519	1.5ml Clear glass, Short Thread 9-425, with label and filling lines, 32 x 11.6mm	100 pcs.
11 09 0520 11 09 1242	1.5ml Amber glass, Short Thread 9-425, with label and filling lines 32 x 11.6mm, same, but silanized	100 pcs.
11 09 0620	1.1ml Clear glass, Short Thread 9-425, with 15µl inner cone in the bottom 32 x 11.6mm	100 pcs.
11 09 0999	0.2ml Clear glass, Short Thread 9-425, with integrated Micro-Insert and label and filling lines, 32 x 11.6mm	100 pcs.
11 09 1957	Short Thread Vial with integrated 0.2ml Micro-Insert, 32 x 11.6mm, amber glass, 1st hydrolytic class, label and filling lines	100 pcs
11 14 1189 11 14 1265	TopSert TPX Vial transparent, Short Thread 9-425, 32 x 11.6mm, with integrated 0.2ml glass Micro-Insert Same, but silanized 11 14 1655(amber) 11 14 1694 (amber/silanized)	100 pcs.
11 19 0932 11 19 1216	0.3ml PP Micro-Vial transparent, Short Thread 9-425, 32 x 11.6mm (amber)	100 pcs.
11 19 1205 11 19 1516	1.5ml PP Vial transparent, Short Thread 9-425, filling lines, inner bottom slightly concave, 32 x 11.6mm (amber)	100 pcs.
11 19 1021	0.3ml TPX Short Thread Micro-Vial, 32 x 11.6mm, crystal clear	100 pcs.



11 09 0500



11 09 0519



11 09 0520



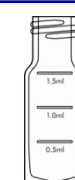
11 09 0620



11 09 0999



11 14 1189

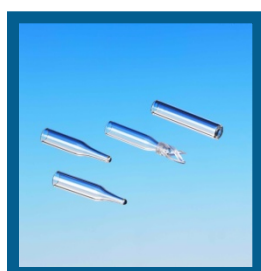


11 19 1205

Product information TopSert

- alternative to Glass Vials with integrated Micro-Insert respectively alternative to more cost-effective Micro-Inserts with Polymere spring
- with Short Thread or Snap Ring-/Crimp Neck, either with normal glass insert or with silanized glass insert
- more rigid than the fragile Glass Vials with fused-in-Micro-Inserts
- absolutely centric and firm fit of the Micro-Insert excellent sealing of the slightly exceeding Micro-Insert by the septa
- good transparency and chemical resistance
- safe standing position; can be lifted by the plastic flanges
- standard dimensions of the Vial and the Micro-Insert guarantee a trouble-free run in the autosampler
- packed with 100 pcs. pieces in a PP-Box or in combination with closures as a 2in1 KIT

Micro-Inserts for vials with wide opening



Art. No.	Description	P-Unit
06 09 0357 06 09 1240	0.1ml Clear glass, conical, 15mm top, 31 x 6mm, Same, but silanized	10 x 100 pcs.
06 09 0669	0.1ml Clear glass, conical, 12mm top, 31 x 6mm	10 x 100 pcs.
06 09 0865 06 09 1343	0.1ml Clear glass, conical, With Polymere spring , 29 x 5.7mm Same, but silanized	10 x 100 pcs.
06 09 0866	0.1ml Clear glass, flat bottom, 31 x 6mm	10 x 100 pcs.

4. Short Thread Vials and Seals ND9

PP Short Thread Seals 9-425, colour as indicated, 6mm centre hole, assembled with



Vials and Seals may also be delivered as a 2in1 KIT



Art. No. trans- parent cap	Art. No. blue cap	Art. No. red cap	Art. No. black cap	Art. No. green cap	Art.No. yellow cap	Septa Description	P-Unit
09 15 0478	09 15 0867	09 15 1176	09 15 1570	09 15 1356	09 15 1542	Natural Rubber red-orange/TEF transparent, 1.0mm, 60° shore A	100 pcs.
09 15 2011	09 15 1819	09 15 2012	09 15 2013	09 15 1911	09 15 2014	RedRubber / PTFE beige, 1.0mm, 45° shore A, Agilent Quality	100 pcs.
09 15 0481	09 15 0838	09 15 1178	09 15 1572	09 15 1332	09 15 1527	Silicone white/PTFE red, 1.0mm, 55° shore A	100 pcs.
09 15 0852	09 15 0869	09 15 1179	09 15 1669	09 15 1746	09 15 1745	Silicone white/PTFE blue, slitted, 1.0mm, 55° shore A	100 pcs.
09 15 0480	09 15 0868	09 15 1177	09 15 1571	09 15 1485	09 15 1486	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
09 15 0981	09 15 0982	09 15 1337	09 15 1668	09 15 1539	09 15 2015	PTFE virginal, 0.2mm, 53° shore D,	100 pcs.

New PRE-CUT Short Thread Seals for HPLC applications



Art. No.	Description	P-Unit
09 15 2021	9mm PP Short Thread Cap, transparent, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm, pre-cut (Y)	100 pcs.
09 15 2016	9mm PP Short Thread Cap, blue, centre hole; Silicone white/PTFE red, 55° shore A, 1.0mm, pre-cut (Y)	100 pcs.

Advantages of the Pre-Cut /Septa/Seal

- As the Silicone part of the septa represents 95 per cent of the complete septa thickness, the needle can easily penetrate through the Y-slit for most of the septa's thickness. Only the 0.05mm thick PTFE-lamination which is uncut, needs to be penetrated by the HPLC needle itself, but this goes without any problems even for these needles.
- The unhurt PTFE-lamination will also give 100 per cent protection to the sample with regard to any possible contamination until the needle pierces through it to pull out the sample for injection.
- The Y-form of the pre-cut was chosen, in order to give the needle a lot of target area for penetration, even if the needle doesn't come down centrally. Besides that the Y-form of the pre-cut allows a better flow of air during sample pick up, in order to avoid a vacuum in the vial.

4. Short Thread Vials and Seals ND9

UltraBond Seals ND9

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



Art. No.	Septa Description	P-Unit
09 04 1220	Silicone white/PTFE red, 11.3mm, 45° shore A	100 pcs.
09 04 1533	Silicone white/PTFE beige, 1.3mm, 45° shore A <i>(improved WATERS® Quality)</i>	100 pcs.
09 04 1534	Silicone white/PTFE beige, slitted, 1.3mm, 45° shore A <i>(improved WATERS® Quality)</i>	100 pcs.

9mm Short Thread MS-Cap *(none-bleeding one component closures for LC/MS and GC/MS applications)*



- One component closure
- No bleeding
- For GC/MS and LC/MS applications only
- Each batch will be GC/MS and LC/MS tested and will be delivered with certificate

Art. No.	Description	P-Unit
09 08 2000	Short Thread MS-Cap, transparent, 9-425 Thread, with diaphragm	100 pcs.

9mm Magnetic Short Thread Cap, 6mm hole, *(for CTC GC PAL + Thermo TriPLUS Autosampler)*



Art. No.	Description	P-Unit
09 15 1907	UltraClean Closure (trade mark): 9mm PP-Short Thread Cap, blue, with centre hole, with assembled magnetic cap, gold; Silicone white/PTFE red, 55° shore A, 1.0mm	100 pcs.

5. Screw Neck Vials and Seals ND10

Screw Neck Vials ND10, wide opening, 10-425 Thread

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



Art. No.	Description	P-Unit
10 09 0743	1.5ml Clear glass, 10-425 Thread, 32 x 11.6mm	100 pcs.
10 09 1196	1.5ml Clear glass, 10-425 Thread, with label and filling lines, 32 x 11.6mm	100 pcs.
10 09 1197	1.5ml Amber glass, 10-425 Thread with label and filling lines, 32 x 11.6mm	100 pcs.



10 09 0743



10 09 1196



10 09 1197

Micro-Inserts for vials with wide opening



Art. No.	Description	P-Unit
06 09 0357 06 09 1240	0.1ml Clear glass, conical, 15mm top, 31 x 6mm, Same, but silanized	10 x 100 pcs.
06 09 0669	0.1ml Clear glass, conical, 12mm top, 31 x 6mm	10 x 100 pcs.
06 09 0865 06 09 1343	0.1ml Clear glass, conical, With Polymere spring , 29 x 5.7mm Same, but silanized	10 x 100 pcs.
06 09 0866	0.1ml Clear glass, flat bottom, 31 x 6mm	10 x 100 pcs.

PP Screw Seals ND10, black, 10-425 Thread, 7mm center hole, assembled with



Art. No.	Septa Description	P-Unit
10 15 1256	Natural Rubber red-orange/TEF transparent, 1.3mm, 60° shore A	100 pcs.
10 15 1257	Silicone white/PTFE red, 1.3mm, 45° shore A	100 pcs.
10 15 0744	Silicone white/PTFE beige, 1.5mm, 45° shore A	100 pcs.
10 15 1258	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
10 15 1328	Silicone white/PTFE blue, slitted, 1.5mm, 55° shore A	100 pcs.



06 09 0357



06 09 0669



06 09 0865



06 09 0866

2in1 Kits – Screw Neck Vials and Screw Neck Seals ND10



Further 2in1 Kits
on special request

Art. No.	Vial description	Seal description
10 32 1282 2in1 KIT consisting of: 10 09 0743+ 10 15 1257	1.5ml Screw Neck Vial, 10-425 thread, 32 x 11.6 mm, clear glass, 1st hydrolytic class, wide opening	10mm PP Screw Cap, black, centre hole, 10-425 thread; Silicone white/PTFE red, 45° shore A, 1.3mm
10 32 1330 2in1 KIT consisting of: 10 09 1196 + 10 15 1328	1.5ml Screw Neck Vial, 10-425 thread, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening, label and filling lines	10mm Combination Seal: PP Screw Cap, black, centre hole, 10-425 thread; Silicone white/PTFE blue, 55° shore A, 1.5mm, slitted
10 32 1283 2in1 KIT consisting of: 10 09 1197 + 10 15 1257	1.5ml Screw Neck Vial, 10-425 thread, 32 x 11.6mm, amber glass, 1st hydrolytic class, wide opening, label and filling lines	10mm PP Screw Cap, black, centre hole, 10-425 thread; Silicone white/PTFE red, 45° shore A, 1.3mm

6. Snap Ring Vials and Seals ND11

Snap Ring Vials ND11, wide opening

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

Art. No.	Description	P-Unit
11 09 0627	1.5ml Clear glass, Snap Ring ND11, 32 x 11.6mm	100 pcs.
11 09 0644	1.5ml Clear glass, Snap Ring ND11, with label and filling lines, 32 x 11.6mm	100 pcs.
11 09 0645	1.5ml Amber glass, Snap Ring ND11, with label and filling lines, 32 x 11.6mm	100 pcs.
11 14 1190 11 14 1266	TopSertTPX Vial transparent, Crimp/Snap Ring Neck ND11, with integrated 0.2ml glass Micro-Insert, 32 x 11.6mm Same, but silanized	100 pcs.
11 14 1656 11 14 1695	TopSert TPX Vial amber, Crimp/ Snap Ring Neck ND11, with integrated 0.2ml glass Micro-Insert, 32 x 11.6mm Same, but silanized	100 pcs.
11 19 0933 11 19 1217	0.3ml PP Micro-Vial transparent, Snap Ring ND11, conical insert, 32 x 11.6mm Same, but in amber	100 pcs.
11 19 1022	0.3 TPX Micro-Vial, crystal clear, Snap Ring ND11, Conical Insert, 32 x 11.6mm	100 pcs.
11 19 1707	0.7ml PP Micro-Vial transparent, Snap Ring ND11, Cylindrical insert, 32 x 11.6mm	100 pcs.



11 09 0627



11 09 0644



11 09 0645



11 14 1190



11 14 1456



11 19 0933



11 19 1707

Micro-Inserts for vials with wide opening

Art. No.	Description	P-Unit
06 09 0357 06 09 1240	0.1ml Clear glass, conical, 15mm top, 31 x 6mm, Same, but silanized	10 x 100 pcs.
06 09 0669	0.1ml Clear glass, conical, 12mm top, 31 x 6mm	10 x 100 pcs.
06 09 0865 06 09 1343	0.1ml Clear glass, conical, With Polymere spring, 29 x 5.7mm Same, but silanized	10 x 100 pcs.
06 09 0866	0.1ml Clear glass, flat bottom, 31 x 6mm	10 x 100 pcs.

SOFT VERSIONS of PE Snap Ring Caps ND11, colour as indicated, 6mm centre hole, assembled with

•More convenient and easier to push on and to remove - Equivalent product to Agilent (Agilent Quality) - In comparison with hard PE caps not so tight

Art. No. transp. cap	Art. No. blue cap	Septa Description	P-Unit
11 15 1850	11 15 1856	Natural Rubber red-orange/TEF transparent, 1.0mm, 60° shore A	100 pcs.
11 15 1983	11 15 1807	RedRubber / PTFE beige, 1.0mm, 45° shore A, Agilent Quality	100 pcs.
11 15 1852	11 15 1854	Silicone white/PTFE red, 1.0mm, 55° shore A	100 pcs.
11 15 1851	11 15 1857	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
11 15 1853	11 15 1858	Silicone white/PTFE blue, slitted, 1.0mm, 55° shore A	100 pcs.
11 15 2046	11 15 2048	Silicone white/PTFE red, 45° shore A, 1.3mm, pre-cut (Y)	100 pcs.

NEW



6. Snap Ring Vials and Seals ND11

HARD VERSIONS of PE Snap Ring Caps ND11, colour as indicated, 6mm centre hole, assembled with

Art. No. trans- parent cap	Art. No. blue cap	Art. No. red cap	Art. No. green cap	Art.No. yellow cap	Septa Description	P-Unit
11 15 0635	11 15 1267	11 15 1323	11 15 1555	11 15 1556	Natural Rubber red-orange/TEF transparent, 1.0mm, 60° shore A	100 pcs.
11 15 2106	11 15 2107				RedRubber / PTFE beige, 1.0mm, 45° shore A, Agilent Quality	100 pcs.
11 15 0637	11 15 1151	11 15 1325	11 15 2017	11 15 1886	Silicone white/PTFE red, 1.0mm, 55° shore A	100 pcs.
11 15 0636	11 15 1268	11 15 1324	11 15 2018	11 15 1677	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
11 15 0650	11 15 1269	11 15 1326	11 15 1794	11 15 1793	Silicone white/PTFE blue, slitted, 1.0mm, 55° shore A	100 pcs.
11 15 2045	11 15 2047				Silicone white/PTFE red, 45° shore A, 1.3mm, pre-cut (Y)	100 pcs.

2in1 Kits – Snap Ring Vials and Snap Ring Caps ND11



Art. No.	Vial description	Seal description
11 26 1059 2in1 KIT consisting of: 11 09 0627+ 11 15 0635	1.5ml Snap Ring Vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	11mm Combination Seal: PE Snap Ring Cap, transparent, centre hole; Natural Rubber red-orange/TEF transparent, 60° shore A, 1.0mm
11 26 1060 2in1 KIT consisting of: 11 09 0627+ 11 15 0637	1.5ml Snap Ring Vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	UltraClean Closure (trade mark): 11mm PE Snap Ring Cap, transparent, centre hole; Silicone white/PTFE red, 45° shore A, 1.3mm
11 26 1061 2in1 KIT consisting of: 11 09 0627+ 11 15 0650	1.5ml Snap Ring Vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	11mm Combination Seal: PE Snap Ring Cap, transparent, centre hole; Silicone white/PTFE blue, 55° shore A, 1.0mm, cross-slitted
11 26 1062 2in1 KIT consisting of: 11 09 0627+ 11 15 0636	1.5ml Snap Ring Vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening	11mm Combination Seal: PE Snap Ring Cap, transparent, centre hole; PTFE red/Silicone white/PTFE red, 45° shore A, 1.0mm
11 26 1837 2in1 KIT consisting of: 11 09 0644 + 11 15 1269	1.5ml Snap Ring Vial, 32 x 11.6mm, clear glass, 1st hydrolytic class, wide opening, label and filling lines	11mm Combination Seal: PE Snap Ring Cap, blue, centre hole; Silicone white/PTFE blue, 55° shore A, 1.0mm, cross-slitted

Further 2in1 Kits on special request.

Production information 2in1 Kits

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 Permax offer 2in1 KITs containing 100 pcs. vials and 100 pcs. seals in a blue, recloseable PP-box. All advantages of the individual items (CleanPack packaging of the vials, tamper-evident packaging of vials and seals, traceability through a batch numbering system, etc.) still remain, however they are put at the user's disposal in a more convenient way. Furthermore the customer only has to reorder one article instead of two, which makes life more easy.

7. Screw Neck Vials and Seals ND13

Screw Neck Vials ND13, 13-425 Thread

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



Art. No.	Description	P-Unit
13 09 0222	4ml Clear glass, 13-425 Thread, 45 x 14.7mm	100 pcs.
13 09 1335	4ml Clear glass, 13-425 Thread, with label and filling lines, 45 x 14.7mm	100 pcs.
13 09 0280	4ml Amber glass, 13-425 Thread, 45 x 14.7mm	100 pcs.
13 09 1336	4ml Amber glass, 13-425 Thread, with label and filling lines, 45 x 14.7mm	100 pcs.



13 09 0222



13 09 1335



13 09 0280



13 09 1336

Micro-Insert for Screw Neck Vials ND13

Art. No.	Description	P-Unit
40 09 0146	0.3ml Clear glass, 40 x 6mm	10x 100 pcs.
50 13 0147	Metal Spring, 50 x 7.5mm	100 pcs.

PP Screw Seals ND13, black, 13-425 Thread, 8.5mm, centre hole/closed top, assembled with



15 21 1664: Vial Rack for 40 Screw Neck Vials ND13

Art. No.	Description	P-Unit
13 15 0456 13 15 0439	Natural Rubber red-orange/TEF transparent, 1.3mm, 60° shore A Same, but cap with closed top	100 pcs.
13 15 0815 13 15 0648	Silicone cream/PTFE red, 1.5mm, 55° shore A Same, but cap with closed top	100 pcs.
13 15 1639 13 15 1638	Butyl red/PTFE grey, 1.3mm, 55° shore A Same, but cap with closed top	100 pcs.
13 15 0292	PTFE red/Silicone white/PTFE red, 1.0mm, 45° shore A	100 pcs.
13 15 1293	Silicone white/PTFE blue, cross-slitted, 1.5mm, 55° shore A	100 pcs.

Individual Components 13-425 (Caps / Septa)

Art. No.	Septa Description	P-Unit
13 08 0166	PP Screw Cap, black, 13-425 Thread, 8.5mm center hole	100 pcs.
13 08 0336	PP Screw Cap, black, 13-425 Thread, closed top	100 pcs.
12 02 0168	Unassembled septa only: PTFE virginal, 0.25mm, 53° shore D	100 pcs.
12 02 0223	Natural Rubber red-orange/TEF transparent, 60° shore A, 1.3mm	100 pcs.
12 02 1635	Butyl red/PTFE grey, 55° shore A, 1.3mm	100 pcs.
12 02 0143	Silicone cream/PTFE red, 55° shore A, 1.5mm	100 pcs.
12 02 0463	PTFE red/Silicone white/PTFE red, 45° shore A, 1.0mm	100 pcs.

8. Shell Vials 1ml, 2ml, 4ml with Plugs

Shell Vials 1ml, 2ml, 4ml with Plugs

The vials are preferentially used on instruments of the following manufacturers: Alcott, Gilson, Shimadzu, Waters® (Wisp 96 respectively 48 Position Carousel)



Art. No.	Description	P-Unit
08 14 0641	1ml Clear glass, with 6mm PE Plug, transparent, 35 x 7.8mm	100 pcs.
08 14 1168	1ml Clear glass, with 8mm PE Plug, transp. 40 x 8.2mm (no insertion barrier)	100 pcs.
08 14 1169	1 ml Amber glass, with 8mm PE Plug, transp. 40 x 8.2mm, (no insertion barrier)	100 pcs.
11 14 0544	2ml Clear glass, with 12mm PE Plug, transparent, 31.5 x 11.6mm	100 pcs.
11 14 0545	2ml Amber glass, with 12mm PE Plug, transparent, 31.5 x 11.6mm	100 pcs.
15 14 0548	4ml Clear glass, with 15mm PE Plug, transparent, 44.6 x 14.65mm	100 pcs.
15 14 0562	4ml Amber glass, with 15mm PE Plug, transparent, 44.6 x 14.65mm	100 pcs.

Special 2in1 Kits



Art. No.	Vial description	Seal description
11 27 1672 2in1 KIT consisting of: 08 09 0483+ 08 08 1167	1ml Shell Vial, 40 x 8.2mm, clear glass	8mm PE Plug, transparent (without insertion barrier)
11 27 1063 2in1 KIT consisting of: 11 09 0537 + 12 08 0546	2ml Shell Vial, 31.5 x 11.6mm, clear glass	12mm PE Plug, transparent
15 27 1065 2in1 KIT consisting of: 15 09 0539 + 15 08 0547	4ml Shell Vial, 44,6 x 14,65mm, clear glass	15mm PE Plug, transparent

9. Snap Cap Vials ND 18 / ND 22 with Snap Caps

Snap Cap Vials ND 18 / ND 22



Art. No.	Description	P-Unit
18 09 0906	5ml Snap Cap Vial ND18, 40 x 20mm, clear glass, 3rd hydrolytic class	100 pcs.
18 09 0907	10ml Snap Cap Vial ND18, 50 x 22mm, clear glass, 3rd hydrolytic class	100 pcs.
20 09 0784	15ml Snap Cap Vial ND22, 48 x 26mm, clear glass, 3rd hydrolytic class	100 pcs.
22 08 0794	25ml Snap Cap Vial ND22, 65 x 26mm, clear glass, 3rd hydrolytic class	100 pcs.

Snap Caps ND 18 / ND 22

	Septa Description	Art. No.
18 08 0913	18mm PE Snap Cap, 19.8 x 5.2mm, transparent, closed top	100 pcs.
22 02 1393	PP Sc22mm PE Snap Cap, 23,5 x 5,5mm, transparent, closed top rew Cap, black, 13-425 Thread, closed top	100 pcs.

10. Headspace Vials and Seals

Headspace Vials ND 20

The Headspace instruments on the market require a broad variety of vials and closures. To facilitate the identification of the right vial, indications on the instrument suitability are given at the bottom of our product overview.

Headspace Vials might differ in:

•Volume (5ml, 10ml, 20ml)

•Rounded or flat bottom

•A rounded bottom is more sturdy and thus more resistant to the high pressure within the vial during the heating process. Furthermore the vial slides more easily into the heating block when being transported by a magnet.

A flat bottom might be necessary when vials have to run within the instrument on a slightly downwards tendency.











•Bevelled top or flat DIN Crimp Neck / Screw Neck

•A bevelled top Headspace Neck might be required for some special closure systems (PERKIN ELMER), however a liner has more surface to lie on with a flat DIN Crimp Neck. The more surface for the liner to rest on, the tighter the seal.

•Length of the Neck (instrument specific)

•Clear / Amber Glass

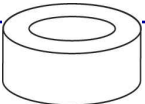





•With / without label and filling lines

									
20 09 0342	20 09 1405 Amber 20 09 1691	20 09 0795	20 09 0873 Amber 20 09 1690	20 09 0440	20 09 0796	20 09 0297 Amber 20 09 1223	20 09 0801	20 09 0802	20 09 0289
Perkin Elmer	Carlo Erba, CTC, Fisons, Varian, etc.	Carlo Erba, Dani, Fisons, Agilent	CTC PAL (Varian, Gerstel, Atas, Shimadzu), TriPlus HS	Perkin Elmer, Tekmar	Carlo Erba, Dani, Fisons, Agilent	Perkin Elmer, Tekmar	Varian	Varian	Varian
5ml	10ml	10ml	20ml	20ml	20ml	20ml	5ml	10ml	50ml
Rounded bottom	Rounded bottom	Flat bottom	Rounded bottom	Rounded bottom	Flat bottom	Rounded bottom	Flat bottom	Flat bottom	Flat bottom
38.2 x 22mm	46 x 22.5mm	46 x 22.5mm	75.5x 22.5mm	75.5 x 23mm	75.5x 22.5mm	75.5 x 23mm	38 x 20mm	54.5x 20mm	101 x 31mm











10. Headspace Vials and Seals

Crimp Caps ND 20

Type of Cap/ Septa						
	20mm Crimp Cap, plain, 10mm centre hole	20mm Headspace Cap, clear lacquered	20mm Magnetic Crimp Cap, gold 8mm centre hole	20mm Bi-Metal Crimp Cap, red, 8mm centre hole	20mm Centre Tear-Off Cap, clear lacquered	20mm Complete Tear-Off Cap, clear lacquered
Butyl Septa, dark grey, 55° shore A, 3.0mm	20 03 0127	20 03 0126	20 03 1157		20 03 0195	20 03 0212
Butyl/PTFE Septa, grey, 50° shore A, 3.0mm	20 03 0059	20 03 0112	20 03 1186	20 03 1623	20 03 0194	20 03 0186
Pharma-Fix Septa (Butyl/PTFE), 50° shore A, 3.0mm	20 03 0030	20 03 0264	20 03 1200		20 03 0060	20 03 0061
Silicone blue transparent/ PTFE white Septa, 45° shore A, 3.0mm	20 03 0142	20 03 0163			20 03 0226	20 03 0227
Silicone blue transparent/ PTFE transparent Septa, 45° shore A, 3.0mm			20 03 0975	20 03 1536		
Silicone white/PTFE beige Septa, 45° shore A, 3.2mm	20 03 0901	20 03 0828	20 03 1785	20 03 1604		
Silicone white/Aluminium Foil silver Septa, 50° shore A, 3.2mm	20 03 0327	20 03 0326				

Liners for Crimp Seals ND20

							
20 02 0122	20 02 0057	20 02 0035	20 02 0141	20 02 2054	20 02 0638	20 02 0335	20 10 0290
Moulded Septa Butyl, dark grey, 55° shore A, 3.0mm	Moulded Septa Butyl/PTFE, grey, 50° shore A, 3.0mm	Pharma-Fix-Septa (Butyl/PTFE), 50° shore A, 3.0mm	Silicone blue transp./ PTFE white, 45° shore A, 3.0mm	Silicone blue transp./ PTFE transparent, 45° shore A, 3.0mm	Silicone white/ PTFE beige, 45° shore A, 3.2mm (Agilent HI Quality)	Silicone white/ Aluminium foil silver, 50° shore A, 3.0mm	20mm Butyl Injection Stopper, grey rec. by PerkinElmer

11. Precision Thread Headspace Vials and Seals for CTC Combi PAL and Thermo TriPlus

Precision Thread Headspace Vials ND 18

As magnetic caps are fairly hard to crimp Permax enlarged their product range with 10ml and 20ml Screw Neck Vials in clear and amber glass with Magnetic Screw Seals for the CTC Combi PAL or similar instruments, like the Thermo TriPlus or Shimadzu AOC5000. In the crimp neck dominated headspace area the screw closure technology represents a more convenient and easier to open and to close alternative to the magnetic crimp seals. Samples can be taken out in the field without the need to carry any crimping tool along or to later transfer the sample into a different vial. The centre hole is designed that way, that it is suitable for SPME as well as for standard Headspace analysis, but still offers enough surface for the magnet to transport a completely filled vial. Furthermore the risk of incorrectly crimped vials is avoided and reproducible analysis results are guaranteed. Penetration is much easier and safer, as the liners have a reduced total thickness in comparison to those of the crimp seals. The special precision thread forces the septa firmly against the glass rim to seal the vial gas-tightly. All items of this product line have been tested and approved by CTC Analytics regarding penetration, tightness and magnetic force. The seals are now also available in a closed top version. With their latest product catalogue also PerkinElmer now offer these vials for their TurboMatrix 40 and 110 Headspace autosampler, if being built after 01.09.2006. Convenience and safe handling make them the ideal choice as Headspace vials for reliable analysis results.



Art. No.	Description	P-Unit
18 09 1306 18 09 1310 (amber)	10ml Precision Thread Headspace-Vial, 46 x 22.5mm, clear glass, 1st hydrolytic class, rounded bottom (for MAGNETIC screw caps)	100 pcs.
18 09 1307 18 09 1311 (amber)	20ml Precision Thread Headspace-Vial, 75.5 x 22.5mm, clear glass, 1st hydrolytic class, rounded bottom (for MAGNETIC screw caps)	100 pcs.



18 09 1306/ 18 09 1310

Magnetic Screw Seals ND18, silver, 8mm center hole assembled with



Art. No.	Septa Description	P-Unit
18 03 1309	Silicone blue transparent/PTFE white, 1.3mm, 45° shore A	100 pcs.
18 03 1414	Silicone white/PTFE blue, 1.5mm, 55° shore A	100 pcs.
18 03 1578	Silicone white/PTFE red, 1.3mm, 45° shore A	100 pcs.
18 03 1416	Butyl red/PTFE grey, 55° shore A, 1.6mm	100 pcs.

Universal Screw Seals ND18, silver, 8mm closed top assembled with

Art. No.	Septa Description	P-Unit
18 03 1666	Silicone white/PTFE red, 1.3mm, 45° shore A	100 pcs.
18 03 1667	Butyl red/PTFE grey, 1.6mm, 55° shore A	100 pcs.



18 09 1307 / 18 09 1311

Suitable for Headspace and SPME application

12. Screw Neck Vials and Seals ND24 (EPA)

Screw Neck Vials ND 24(EPA)

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



Art. No.	Description	P-Unit
24 09 0589	20ml Clear glass, 24-400 Thread, 24-400 Thread, 57 x 27.5mm	100 pcs.
24 09 0927	Amber glass	
24 09 0839	Clear glass, 24-400 Thread, 24-400 Thread, 72.5x 27.5mm	100 pcs.
24 09 0923	Amber glass	
24 09 0402	Clear glass, 24-400 Thread, 24-400 Thread, 95 x 27.5mm	100 pcs.
24 09 0928	Amber glass	
24 09 1089	Clear glass, 24-400 Thread, 24-400 Thread, 140 x 27.5mm	100 pcs.
24 09 1090	Amber glass	



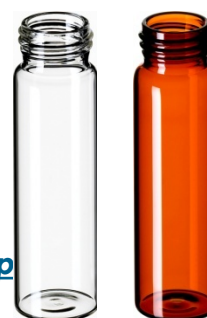
24 09 0589 / 24 09 0927



24 09 0839 / 24 09 0923

PP Screw Seals ND24, white, 24-400 Thread, 12.5mm center hole/closed top, assembled with

Art. No.	Description	P-Unit
24 15 1394 24 15 1395	Butyl red/PTFE grey, 2.5mm, 55° shore A Same, but cap with closed top	100 pcs.
24 15 1163 24 15 1540	Silicone natural/PTFE beige, 3.2mm, 45° shore A Same, but cap with closed top	100 pcs.

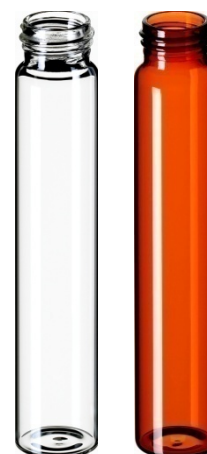


24 09 0402 / 24 09 0928

UltraBond Screw Seals, PP, white, 24-400 Thread, 15mm centre hole / closed top



Art. No.	Septa Description	P-Unit
24 04 0842 24 04 0841	Silicone natural/PTFE beige, 45° shore A, 3.2mm Same, but cap with closed top	100 pcs.



24 09 1089 / 24 09 1090

Individual Components 24-400 (Caps / Septa)

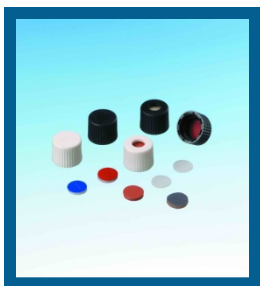
Art. No.	Septa Description	P-Unit
22 02 1108	Silicone natural/PTFE beige, 3.2mm, 45° shore A	100 pcs
22 02 1393	Butyl red/PTFE grey, 2.5mm, 55° shore A	100 pcs.
24 08 0403 24 08 0592	PP Screw Cap, white, 12.5mm centre hole Same, but cap with closed top	100 pcs.

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.

13. Screw Neck Vials and Seals for Sample Storage Purposes

Screw Neck Vials and Seals for Storage Purposes ND8, ND13, ND15, ND18, ND20, ND24

- Screw Neck Vials for storage purposes made of glass of the 1st hydrol. class
- Vials with different volumes are available
- Amber vials partially upon request
- Upon request seals with different septa material are also available



Art-No.:	Description Glass/Seal	P-Unit
11 09 0210	2ml Clear glass, Clear glass, 32x11,6	100 pcs.
11 09 0259	2ml Clear glass, Amber glass, 32x11,6	100 pcs.
08 15 1653	Butyl red / PTFE grey, closed top), 1,3mm,55° shore A (ND8)	100 pcs.
13 09 0222	4ml Clear glass, 45x14,7	100 pcs.
13 09 0280	4ml Amber glass, 45x14,7	
13 15 1638	Butyl red/PTFE grey, closed top 1,3mm, 55° shore A (ND13)	100 pcs.
15 09 1703	8ml Clear glass, 61x16,6	100 pcs.
15 09 1774	8ml Amber glass, 61x16,6	
15 09 1657	12ml Clear glass, 66x18,5	100 pcs.
15 09 1800	12 mlAmber glass, 66x18,5	
15 15 1748	Butyl red/PTFE grey, closed top, 1,6mm, 55° shore A (ND15)	100 pcs.
15 15 0793	Naturkautschuk rot-orange/TEF transparent, 60° shore A, 1,3mm(ND15)	100 pcs.
15 15 1083	Silicon weiß/ PTFE rot, 45° shore A, 1,3mm (ND15)	100 pcs.
18 09 1704	16ml Clear glass, 71x20,6	100 pcs.
18 15 1751	Butyl red/PTFE grey, closed top, 1,3mm, 55° shore A (ND18)	100 pcs.
18 15 1387	Butyl rot/PTFE grau, 55° shore A, 1,6mm (ND18)	100 pcs.
20 09 1705	20ml Clear glass, 86x22,7	100 pcs.
20 15 1805	Butyl red/PTFE grey, closed top, 1,3mm, 55° shore A (ND20)	100 pcs.
24 09 0589	20ml Clear glass, 57x27,5	100 pcs.
24 09 0927	20ml Amber glass, 57x27,5	
24 09 0839	30ml Clear glass, 72,5x27,5	100 pcs.
24 09 0923	30ml Amber glass, 72,5x27,5	
24 09 0402	40ml Clear glass, 95x27,5	100 pcs.
24 09 0928	40 ml Amber glass, 95x27,5	
24 09 1089	60ml Clear glass, 140x27,5	100 pcs.
24 09 1090	60ml Amber glass, 140x27,5	
24 15 1395	Butyl red/PTFE grey closed top 2,5mm, 55° shore A (ND24)	100 pcs.



15 09 1703



18 09 1704



20 09 1705

14. Vial Racks

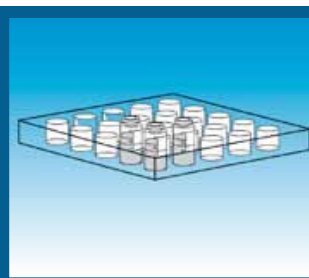
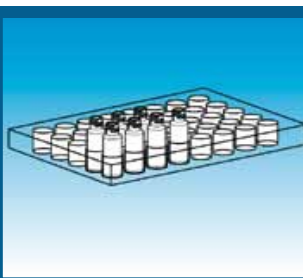
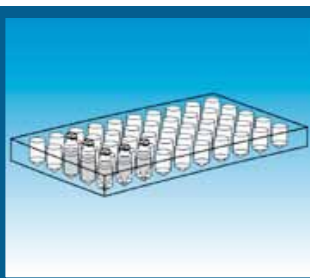
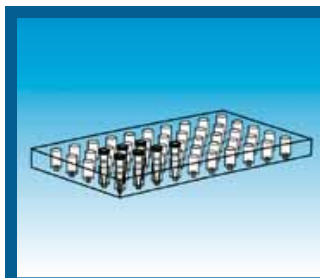
Vial Racks



- 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 Racks for 8mm resp
- 11mm vials can even hold conically shaped sample vials Custom-tailored vial racks can be manufactured according to customer's specifications

Acrylic Vial Racks

Art-No.:	Description	P-Unit
08 21 1000	Vial Rack, Acrylic, 173 x 95 x 20mm, 50 cavities with a diameter of 8.5/3mm	1 pcs.
12 21 1001	Vial Rack, Acrylic, 173 x 95 x 20mm, 50 cavities with a diameter of 12mm	1 pcs.
15 21 1664	Vial Rack, Acrylic, 175.8 x 115.5 x 20mm 40 cavities with a diameter of 15.1mm	1 pcs.
24 21 1002	Vial Rack, Acrylic, 160 x 160 x 30mm, 25 cavities with a diameter of 24mm	1 pcs.



08 21 1000	12 21 1001	15 21 1664	24 21 1002
<p>Suitable for e.g.:</p> <p>08 09 0258, 08 09 0284, 08 09 0305, 08 09 0606, 08 09 0845, 08 09 0953, 08 09 1080, 08 14 0513, 08 14 0595, 08 14 0641, 08 14 1168, 08 14 1169 40 09 0146</p>	<p>Suitable for e.g.:</p> <p>10 09 0743, 10 09 1196, 10 09 1197, 11 09 0210, 11 09 0259, 11 09 0356, 11 09 0382, 11 09 0415, 11 09 0417, 11 09 0419, 11 09 0476, 11 09 0477, 11 09 0500, 11 09 0519, 11 09 0520, 11 09 0619, 11 09 0620, 11 09 0627, 11 09 0644, 11 09 0645, 11 09 0831, 11 09 0921, 11 09 0999, 11 09 1241, 11 09 1242, 11 09 1956, 11 09 1957, 11 14 0544, 11 14 0545, 11 14 1189, 11 14 1190, 11 14 1655, 11 14 1656, 11 19 0932, 11 19 0933, 11 19 1021, 11 19 1022, 11 19 1205, 11 19 1516, 11 19 1706, 11 19 1707</p>	<p>Suitable for e.g.:</p> <p>13 09 0222, 13 09 0280, 13 09 1335, 13 09 1336, 15 14 0548, 15 14 0562</p>	<p>Suitable for e.g.:</p> <p>18 09 0864, 18 09 0906, 18 09 0907, 18 09 1306, 18 09 1307, 18 09 1310, 18 09 1311, 20 09 0297, 20 09 0342, 20 09 0440, 20 09 0795, 20 09 0796, 20 09 0801, 20 09 0802, 20 09 0873, 20 09 1222, 20 09 1223, 20 09 1405, 20 09 1690, 20 09 1691</p>

15. Crimping Tools

Manuel Crimping Tools



- 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 11mm, 13mm and 20mm crimpers are adjustable in crimping height by screwing up or down the pressure block in the crimping head with a hexagon key

Crimper for Vials with Crimp Neck ND8, ND11, ND13, ND20

Art-No.:	Description	P-Unit
08 06 0005	Crimper for 8mm Crimp Caps	1 pcs.
11 06 0006	Crimper for 11mm Crimp Caps	1 pcs.
13 06 0007	Crimper for 13mm Crimp Caps	1 pcs.
20 06 0008	Crimper for 20mm Crimp Caps	1 pcs.

Decapper for Vials with Crimp Neck ND8, ND11, ND13, ND20

Art-No.:	Description	P-Unit
08 07 0001	Deecapper for 8mm Crimp Caps	1 pcs.
11 07 0002	Deecapper for 11mm Crimp Caps	1 pcs.
13 07 0003	Deecapper for 13mm Crimp Caps	1 pcs.
20 07 0004	Deecapper for 20mm Crimp Caps	1 pcs.

Pneumatic Hand-held Crimping Tool



- Crimping and decapping tool, operated by compressed air (6.2bar = 90psi minimum)
- Easy handling; just by pushing the button the vial is crimped or decapped
- Interchangeable "C"-Heads for crimping and decapping in various sizes
- Adjustable and constant crimping pressure
- Space-saving installation with a balancer above the working bench
- Ergonomical handling, as the balancer compensates the weight of the pneumatic crimper and facilitates steady and precise crimping
- Air supply connector should have "N.P.T." thread
- Upon request the pneumatic crimping tool can be delivered with a stainless steel coated hose instead of the flexible Polyurethane hose

Art-No.:	Description	P-Unit
00 00 0089	Basic pneumatic crimping tool incl.- pressure regulator- safety valve- teflon hose coated with flexible polyurethane hose	1 pcs.
00 00 0120	Hanging device with balancer	1 pcs.
00 00 1898	Stand with Foot Switch for Pneumatic Basic Crimping Tool	1 pcs.
11 06 0150	Crimping Head for 11mm Aluminium Crimp Caps	1 pcs.
13 06 0134	Crimping Head for 13mm Aluminium Crimp Caps	1 pcs.
20 06 0088	Crimping Head for 20mm Aluminium Crimp Caps	1 pcs.