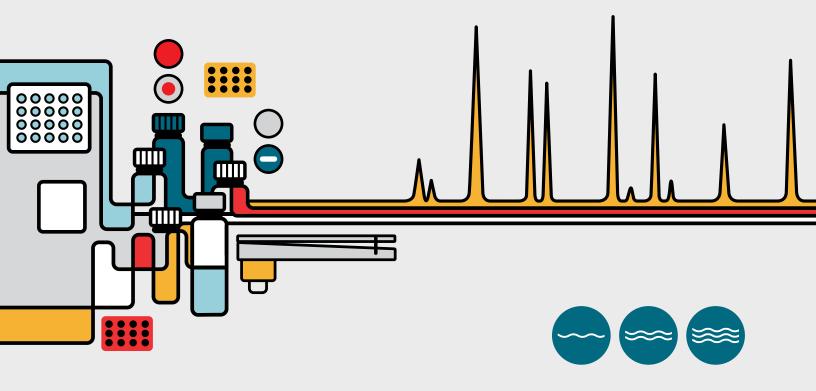


Sample handling

SureSTART collection

Streamlined choice. Trusted quality



Introduction

Streamlined choice. Trusted quality SureSTART vials, caps, inserts, well plates, mats and accessories

Excellence from start to finish

The Thermo Scientific™ SureSTART™ sample handling collection includes a range of sample storage and analytical vials and well plates previously sold under Thermo Scientific™ National Scientific™, Thermo Scientific™ Chromacol™ and Thermo Scientific™ Sun-SRi™ product names.

All these products are absorbed into one collection so we can deliver a first-class product experience to our customers from the moment you start your purchasing journey, to provide you with performance, instrument compatibility, affordability and delivery that you need.

We understand that not every experiment or analyte is the same, and that you need products that can meet your performance and pricing requirements. You can find three different waves on each of our glass vials—and a write-on patch that comes as standard. Making it easier for analysts to select the right product and have it labelled correctly right from the start.

With the SureSTART collection, we ensure that no HPLC/UHPLC or GC system gets left behind. Our vials and well plates are suitable for standard instruments from all vendors, streamlining and simplifying your stockroom—and your budget.



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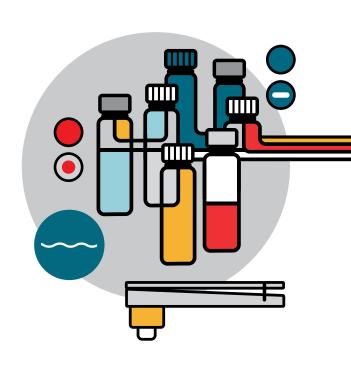
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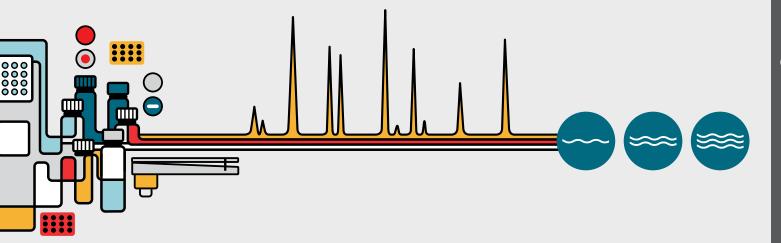
Why Thermo Scientific SureSTART collection?

Fiv	ve main benef	its to you	More ways to master your testing
		Assured quality and performance	Need the highest standards of quality and performance? Our SureSTART collection has you covered with the most stringent standards in the marketplace—ensuring that you can meet every regulatory requirement.
		Instrument compatibility	Our collection contains a broad selection of products to provide complete compatibility for add-on and integrated chromatography autosamplers.
		Sample security and low compound adsorption	Protect your samples from being affected by pH shifting, adducting or contamination, and prevent analyte loss from either the cap top or analyte adsorption to the glass surface.
*	****	Better product experience	Our SureSTART collection is segmented into three different performance levels, with visual waves on each glass vial to ensure you always select the right product for your experiment, every time.
		Power to extend your consumables budget	We offer several ways to realize extra value and extend your budget, including built-in bulk discounts—the more you buy, the more you save.



SureSTART performance levels

Greater choice for what matters most

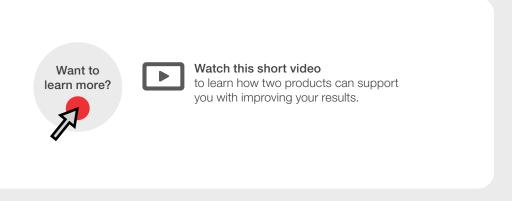


We are committed to providing a broad selection of solutions for all your chromatography and sample storage requirements.

Our vials and autosampler well plates are consistently manufactured with the lowest levels of extractables and leachables. They are also made from glass that has the lowest compound adsorption, and plastic that is tested and approved for analytical use.

We have the highest level of standards and certification available in the marketplace so that you can obtain highly reproducible data. Whether you have routine samples, or you need to ensure the highest level of confidence and compliance, our market-leading collection of storage and autosampler vials, well plates and sample handling accessories has everything you will need

One collection. Three performance levels. All from one trusted source.



Analytical performance requirements

Products		Detector type	Comments
	Thermo Scientific™ SureSTART™ Performance level 1 products	Non-MS	Suitable for QA/QC applications using core detectors, e.g., UV/Vis, PDA, RI, ELSD, FLD, FID, NPD, ECD, TCD, or FPD. Compound concentrations are at easily detectable levels.
	Thermo Scientific [™] SureSTART [™] Performance level 2 products	MS	Suitable for routine QA/QC applications using MS technology. Compound concentrations are at easily detectable or low levels of detection.
	Thermo Scientific™ SureSTART™ Performance level 3 products	MS	Suitable for challenging applications, and research-focused applications, using MS technology. Compound concentrations are at/near the method detection limit.



Performance level 1 Everyday analysis: Chromatography approved

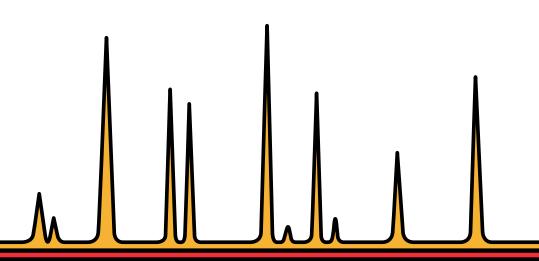


Performance level 2
High throughput:
Robust and reproducible



Performance level 3 High performance: Selective and sensitive





Selection guide for vials and well plates

Which SureSTART product/performance level is right for you?

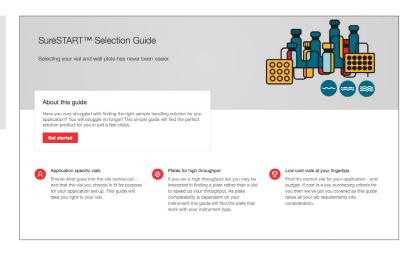
There are several factors to consider when choosing a vial or well plate for your application. This section will help guide you through this process to determine which combination is most suitable for your application requirements

?

Need a quick answer?

Why not use our online product selector guide that includes our entire SureSTART Collection of vials, caps, well plates and mats.





?

Already purchasing a product?

Let our cross-reference tool find the equivalent SureSTART product/catalog number for you.



SureSTART Cross F Designed for cross referencing chromatography via product is easy. Using this cross-reference tool, the equivalent Thermo Scientific™ SureSTART™ producatalogue number/ part number.	ls, caps and inserts, finding an equivale are are 2 easy options for you to find an	
Option 1: Input SKUs Directly Either type or copy/paste a list of SKUs into the tex	d field below	
Option 2: Upload CSV -cne file selected>-	★ Choose file	Don't have a data file? Download a sample .csv file
Search		

Choosing your vials and inserts

The chart below provides a quick guide to selecting the right vial/insert and material for your experimental and application requirements

	Performance Sample volume				
Non-MS Compound levels not challenging	MS Compound levels at relatively low levels	MS Compound levels near method detection limit or for research analysis	Not sample limited	Volumes vary	Limited
1	1	1	1	1	1
SureSTART Performance level 1 General purpose: chromatography approved	SureSTART Performance level 2 high-throughput: for applications requiring robust and reproducible results High-throughput: for applications requiring robust and reproducible results	SureSTART Performance level 3 High performance: for applications requiring high selectivity and sensitivity	2 mL vial SureSTART Performance level 1, 2 and 3	High recovery vial Total recovery vial SureSTART Performance level 3	Polyspring insert (self-aligning) Pulled insert (economical choice) Fused insert vial 2 mL vial with separate inserts SureSTART Performance level 2 and 3

	Compound polarity		Compoun	d volatility	Compoun	d stability
Non-polar Mid-polar	Polar	Highly polar	Volatile	Non-volatile	Light-stable	Light-sensitive
1	1	1	1	→	1	1
Glass vials SureSTART Performance level 1, 2 and 3	*GOLD-grade glass SureSTART Performance level 3	*Silanised glass vials **Polypropylene (PP) vials GOLD-grade glass vials and inserts When low levels of inorganic are required and for solvent stability SureSTART Performance level 1 (PP), 2 and 3 (silanised)	Crimp top vial *SureStop vial Screw thread vial Headspace vials	Screw thread vial Snap-It vial Crimp top vial	Clear vials	Amber vials

^{*}These products can be found in SureSTART Performance level 3

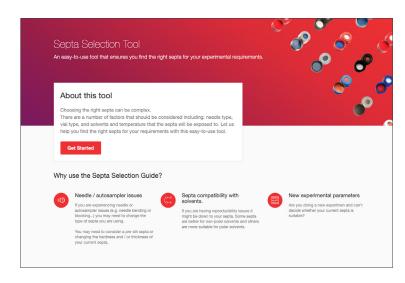
^{**}Not recommended for GC applications

Choosing your septa

The chart below provides a quick guide to selecting the right septa material type for your experimental and application requirements.

Multiple injection?	Temperature?		Thin, fragile needle?	Blunt, thick needle?	Critical analysis?	Low coring?	
Good resealability required	-40°C to 120 °C	-40°C to 110 °C	-60°C to 200 °C	Soft and thin septa required	Pre-slit/pre-cut liner as penetration aid (HPLC)	Very clean liner required/ low-extractables	Double-sided PTFE laminated liners required
1	1	1	1	1	1	1	1
Silicone/PTFE Natural rubber/ TEF	Natural rubber/ TEF Butyl/PTFE	Red Rubber/ PTFE	Silicone/PTFE	Silicone/PTFE	Silicone/PTFE, pre-slit	Silicone/PTFE	PTFE/silicone/ PTFE





Choosing your well plates and mats

Selecting the perfect Thermo Scientific WebSeal well plates and mats for your chromatography requirements is easy using our selector tools and resources.

Performance requirements			Compound polarity		Sample availability		
Compound levels not challenging	Compound levels not challenging/ relatively low levels	Compound levels at/near method detection limit	Water and polar	Hydrophobic (e.g., proteins and peptides)	Unlimited	Limited	Very limited
1	1	1	1	1	1	1	1
WebSeal Plastic, chromatog- raphy tested	WebSeal certified products Plastic, MS tested	WebSeal Plate+ Glass-coated plates Plate with glass inserts	WebSeal plastic and certified	WebSeal Plate+ Glass-coated plates Plate with glass inserts	Flat bottom Where sample volume is high	U-Bottom Where sample volume is low	V-Bottom Where sample volume is very low

Microtitre: 14-16 mm (also referred to as microwell and standard well plate) Mid well plate: 20-41 mm

Deep well plate: >44 mm

Autosampler compatibility							
Agilent	Waters ACQUITY						
1	1	1	1	1	1		
Microtitre plate Mid well plate Deep well plate					Mid well plate		

^{*}TriPlus RSH with 6-drawer stack can accommodate 24 microtitre 15.5 mm plates microtitre well plate









Learn more about the well plate terms:

- Microtitre (also known as microwell and standard well plate): 14–16 mm
- Mid well plate: 20–41 mmDeep well plate: >44 mm

Examples of microtitre, mid well and deep well plates shown above

^{**}Barcoded plates for complete orientation

Certified integrity and consistency

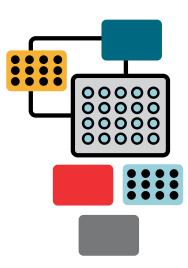


With over 40 years of experience supplying vial and well plates, Thermo Scientific SureSTART certified products are supplied to meet 'critical to quality' specifications, consistently. SureSTART products are produced in compliance with ISO 9001 requirements.

In addition, SureSTART certified products include:

- Glass vials made from First Hydrolytic Type 1 A borosilicate glass, which conforms to US FDA, USP, and EU Pharmacopeia standards
- Chemically and thermally resistant well plates are made of the highest quality materials.
- Our autosampler WebSeal well-plates all conform to ANSI SLAS 4-2004 standards.
- In-line opto-electronic testing inspects 100% of all key dimensions

- Our well plates are chromatography tested for solvent compatibility and inertness to ensure your data quality is not compromised
- Packaged in material that has been tested and selected for cleanliness
- Subjected to rigorous end-of-line sampling and quality control procedures to ensure all vials remain within specification
- Most glass vials come with a non-removable write-on patch convenience and ease-of-use
- Patented products, such as AVCS caps designed to minimize sample evaporation
- Products produced and/or packed in a clean environment to reduce contamination
- Glass vials which are available deactivated/silanized



Performance level 1: Everyday analysis



Chromatography approved

Meet your chromatographic needs

Choose the right vial for chromatographic analyses. Thermo Scientific™ SureSTART™ Performance level 1 products are designed for everyday chromatography analysis. They provide an affordable choice for use with all GC and HPLC/UHPLC instrument types.

If you are verifying compound presence and quantification using detection techniques such as UV/Vis, PDA, RI, ELSD, FLD, FID, NPD, ECD, TCD, or FPD, our Performance level 1 products are the perfect solution for you– select the products with the one wave.

Within Performance level 1 you will find a selection of vials (glass, plastic, <2 mL, 2 mL and headspace).

You can also find a great selection of standard and bonded caps to support robotic autosamplers within this performance level.

Need stoppers? These can also be found within this performance level.

Vials	Caps
<2 mL polypropylene screw microvials	- 9 mm screw caps
2 mL glass screw vials	5 mm screw caps
2 mL glass crimp vials	11 mm crimp caps
<2 mL polypropylene snap microvials	11 mm snap caps
Plastic inserts	_
20 mL glass crimp headspace vials	20 mm crimp caps
20 mm stopper	-

Performance level 1

for everyday analyses

- Packaged in material that has been tested and selected for cleanliness
- All products within this performance level are suitable for use with GC and HPLC/UHPLC
- Headspace vials and caps available in 20 mL options
- Vials are identified by one wave and a convenient write-on patch as standard
- Vials and caps available as screw, snap and crimp
- Vials available as clear or amber glass and as either glass or plastic
- Vial volume sizes ranging from 0.3 mL to 20 mL covering limited sample volumes to headspace analyses
- Caps come in a choice of polypropylene, aluminium and magnetic steel caps with silicone/PTFE, rubber/TEF, or butyl/PTFE septa
- Use Thermo Scientific[™] manual or electronic crimpers and decrimpers for easy application and removal of crimp caps
- Buy vials and caps in bulk for greater savings

Specification certified

- All Thermo Scientific SureSTART vials are dimensionally verified to ensure autosampler compatibility
- Automated optical and gauge inspection to ensure critical dimensions and tolerances
- Vials meet all relevant requirements of US, EU, JPN Pharmacopia
- · Uniform and defect-free

Lot traceable

- 100% traceable through the manufacturing process
- Certificate of Conformance available by lot number upon request



Screw vials and associated caps

(<2 mL - 2 mL vials, 9 mm caps)

<2 mL polypropylene screw microvials

Performance Level 1 for everyday analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height)
- No marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps







Clear plastic

1.5 mL

1 mL











Screw vials and associated caps Continued

(<2 mL - 2 mL vials, 9 mm caps)

2 mL glass screw vials

Performance Level 1 for everyday analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps









Vial color and material	Clear glass	Amber glass
Total volume	2 m	L
Usable volume	1.5 r	nL
Residual volume	170	μL
Aveilable masks		



Available packs		
100/pack	<u>CHSV9-10P</u>	CHSV9-20P
10 x 100/pack	CHSV9-10PT	CHSV9-20PT
50 x 100/pack	o <u>CHSV9-10PF</u>	CHSV9-20PF





Screw vials and associated caps Continued

(<2 mL - 2 mL vials, 9 mm caps)

9 mm screw caps

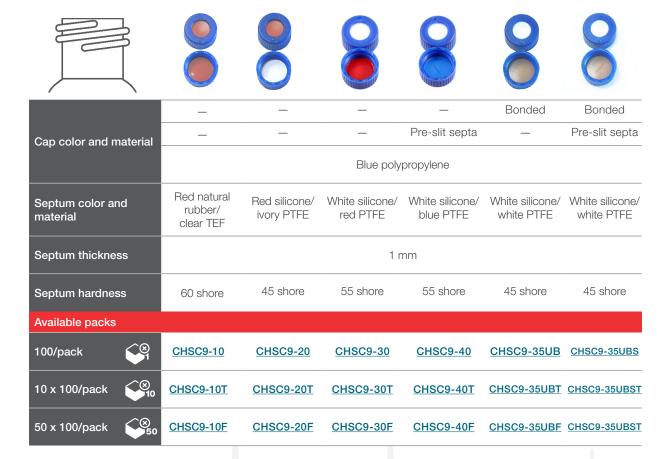
Performance Level 1 for everyday analysis



Comments

- Short thread screw
- 9 mm
- Specification certified

For use with <2 mL and 2 mL screw vials









Crimp vials and associated caps (2 mL, 11 mm caps)



2 mL glass crimp vials

Performance Level 1 for everyday analysis



Comments

- Crimp closure (11 mm)
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot

Residual volume

Specification certified

For use with 11 mm crimp caps





Available packs		
100/pack	CHCV11-10P	CHCV11-20P
10 x 100/pack	CHCV11-10PT	<u>CHCV11-20PT</u>
50 x 100/pack	CHCV11-10PF	CHCV11-20PF



170 μL



Crimp vials and associated caps Continued (2 mL, 11 mm caps)

11 mm crimp caps

Performance Level 1 for everyday analysis

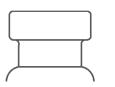


Comments

- Crimp closure (11 mm)
- Specification certified

For use with <2 mL and 2 mL crimp vials, or <2 mL and 2 mL snap vials Use with 11 mm crimpers and decrimpers













Septum hardness	60 shore	45 shore
Available packs		
100/pack (8)	CHCC11-10	CHCC11-30
10 x 100/pack	<u>CHCC11-10T</u>	CHCC11-30T
50 x 100/pack \$\infty\$50	CHCC11-10F	CHCC11-30F

Learn more about:

- Manual crimpers and decrimpers
- Electronic crimpers and decrimpers







Snap vials and associated caps

(<2 mL vials, 11 mm caps)

<2 mL polypropylene snap microvials

Performance Level 1 for everyday analysis



Comments

- Snap (11 mm)
- 12 mm x 32 mm (diameter x height)
- No marking spot
- Specification certified

For use with 11 mm snap caps















Vial color and material		Clear polypropylene	
viai color and material	Conical	Conical	Flat bottom
Total volume	0.3 mL	0.8 mL	1.0 mL
Usable volume	0.2 mL	0.6 mL	0.8 mL
Residual volume	4 μL	6 μL	80 μL
Available packs			
100/pack	6ERV11-03PPC	6ERV11-08PPC	6ERV11-08PPFB
10 x 100/pack	6ERV11-03PPCT	6ERV11-08PPCT	6ERV11-08PPFBT
50 x 100/pack \$\infty\$50	6ERV11-03PPCF	6ERV11-08PPCF	6ERV11-08PPFBF





Snap vials and associated caps continued

(<2 mL vials, 11 mm caps)

11 mm snap caps

Performance Level 1 for everyday analysis



Comments

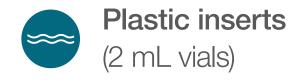
- Snap closure (11 mm)
- · Specification certified
- Does not re-seal after puncture

For use with <2 mL and 2 mL snap vials











Plastic inserts for 2 mL vials

Performance Level 1 for everyday analysis



Comments

- 6 mm x 31 mm (diameter x height) (size x height) conical with polyspring base
- No marking spot
- Specification certified

For use with 2 mL screw vials, 2 mL snap vials or 2 mL crimp vials





Insert color and material	Clear glass with clear polyprolyene polyspring	
Total volume	0.30 mL	
Usable volume	0.25 mL	
Residual volume	4 μL	
Available packs		



Available packs		
100/pack	Ç⊗ ₁	6EME03CPPSP
10 x 100/pack	(⊗)10	6EME03CPPSPT
50 x 100/pack	⊗ 50	6EME03CPPSPF

Learn more about:



Headspace vials and associated caps

(20 mL vials, 20 mm caps)

20 mL glass crimp headspace vials

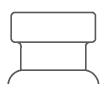
Performance Level 1 for everyday analysis



Comments

- Crimp
- 22.50 mm x 75.5 mm (diameter x height) square rim, round bottom base
- Marking spot
- Specification certified

For use with 20 mm crimp caps











Residual volume	U.8 ML
Available packs	
100/pack	CHCV20-14
10 x 100/pack	<u>CHCV20-14T</u>





Headspace vials and associated caps Continued

(20 mL vials, 20 mm caps)

20 mm crimp caps

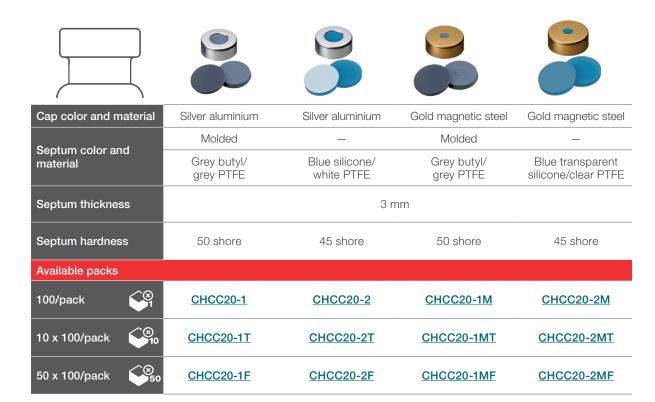
Performance Level 1 for everyday analysis



Comments

- Crimp closure (20 mm)
- Specification certified

For use with 10 mL and 20 mL crimp headspace vials (with diameter neck size of 20 mm) Use with 20 mm crimpers and decrimpers





Learn more about:

- Manual crimpers and decrimpers
- Electronic crimpers and decrimpers







20 mm stopper

Performance Level 1 for everyday analysis



Comments

Specification certified

For use with vials (e.g. 10 mL/20 mL crimp vials) with diameter neck size of 20 mm





Product description	Stopper (20 mm)
Color and material	Grey bromobutyl
Septum thickness	3 mm
Septum hardness	45 shore
Available packs	
100/pack	CHBS-20



Septum hardness	45 shore
Available packs	
100/pack	<u>CHBS-20</u>
10 x 100/pack	CHBS-20T
50 x 100/pack	CHBS-20F



Performance level 2: High-throughput analysis

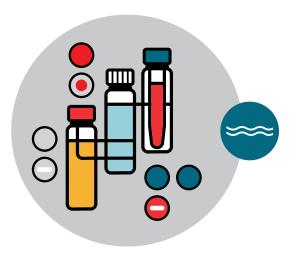
When robustness and reproducibility are key

Be compliant-ready for your high-throughput samples in regulated environments

Choose Thermo Scientific™ SureSTART™ Performance level 2 products, to ensure high quality data with an uninterrupted workflow in high throughput applications using GC, HPLC/UHPLC, single or triple quadrupole MS systems. Use these Level 2 vials for routine QA/QC applications, where the analyte levels are achievable or close to the method detection level. These products have very low metal content and extractables and leachables and conform to high standards so that you can meet your regulatory requirements. They are Specification Certified to ensure their physical dimensions and autosampler compatibility.

If you need products that support routine analyses, our Performance Level 2 products are here for you. Select the products with the two waves.

Within Performance Level 2 you will find a selection of kits (including our range of EPA and Scintillation), vials, caps, inserts, septa and stoppers.



Performance level 2

for high-throughput applications

- All products within this performance level are suitable for GC, HPLC/UHPLC, and mass spectrometry (MS) applications
- Volume sizes ranging from 0.3 mL to 20 mL covering limited sample volumes to headspace analyses
- Headspace vials and caps available from 10 mL 20 mL
- Vials are identified by two waves and a convenient write-on patch as standard
- · Vials available as screw, snap and crimp
- · Vials available in glass, silanized glass and plastic
- Vials available as clear or amber glass
- Caps available as screw, screw AVCS, snap and crimp
- Use Thermo Scientific manual or electronic crimpers and decrimpers for easy application and removal of crimp caps
- EPA, scintillation and specification certified kits can be found within performance level 2
- Buy vials and caps in bulk for greater savings

Specification certified

- All Thermo Scientific SureSTART vials are dimensionally verified to ensure autosampler compatibility
- Inspected by automated optical and gauge inspection to ensure critical dimensions and tolerances
- Vials meet all requirements of US, EU, JPN Pharmacopia
- Uniform and defect-free

Lot traceable

- 100% traceable through the manufacturing process
- Certificate of Conformance available by lot number upon request

Performance level 2: High-throughput analysis

Vials	Caps	
1.7 mL glass high recovery screw microvials for <2 mL sample	9 mm screw caps	
2 mL glass screw vials		
2 mL glass crimp vials	11 mm crimp caps	
2 mL glass snap vials	11 mm snap caps 11 mm crimp caps	
Inserts for 2 mL vials	-	
4 mL glass screw vials	13 mm screw caps	
10 mL glass screw vials		
10 mL glass crimp headspace vials	– 20 mm crimp caps	
20 mL glass screw vials	Zo min chinp caps	
20 mL glass crimp headspace vials		
20 mm stoppers and septa		
Kits		
Specification certified	EPA	
Scintillation	-	



Screw vials and associated caps

(<2 mL - 2 mL vials, 9 mm caps)

1.7 mL high-recovery glass screw microvials for <2 mL samples

Performance Level 2 for high-throughput applications



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) inner V-bottom base
- Marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps











Residual volume	4 μL
Available packs	
100/pack	<u>6ASV9-V1</u>
10 x 100/pack	8 10 6ASV9-V1T
50 x 100/pack	8 50 6ASV9-V1F







Screw vials and associated caps Continued

(<2 mL - 2 mL vials, 9 mm caps)

2 mL glass screw vials

Performance Level 2 for high-throughput applications



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps

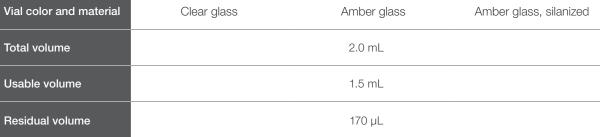














Available packs				
100/pack	S	6ASV9-1P	6ASV9-2P	6ASV9-S2P
10 x 100/pack	⊗ 10	6ASV9-1PT	6ASV9-2PT	_
50 x 100/pack	⊗ 50	6ASV9-1PF	6ASV9-2PF	_

Need a smaller volume?

• Why not use with our polyspring glass inserts





Screw vials and associated caps Continued

(<2 mL - 2 mL vials, 9 mm caps)

9 mm screw caps

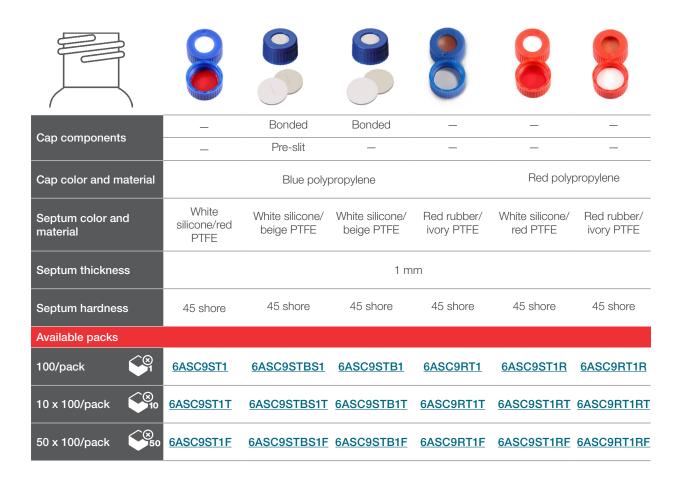
Performance Level 2 for high-throughput applications



Comments

- Short thread screw
- 9 mm
- Specification certified

For use with <2 mL and 2 mL screw vials







Crimp vials and associated caps

(2 mL vials, 11 mm caps)

2 mL glass crimp vials

Performance Level 2 for high-throughput applications



Comments

- Crimp
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- Specification certified

For use with 11 mm crimp caps, or 11 mm snap caps













		'
Available packs		
100/pack	6ACV11-1P	6ACV11-2P
10 x 100/pack	6ACV11-1PT	6ACV11-2PT
50 x 100/pack	6ACV11-1PF	6ACV11-2PF





Crimp vials and associated caps Continued

(2 mL vials, 11 mm caps)

11 mm crimp caps

Performance Level 2 for high-throughput applications



Comments

- Crimp closure (11 mm)
- Specification certified

For use with <2 mL - 2 mL crimp vials, or <2 mL - 2 mL snap vials Use with 11 mm crimpers and decrimpers



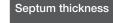








Red rubber/ivory PTFE



1 mm



Septum hardness	45 shore	60 shore
Available packs		
100/pack	6ACC11ST1	6ACC11RT1
10 x 100/pack	6ACC11ST1T	6ACC11RT1T
50 x 100/pack	6ACC11ST1F	6ACC11RT1F

Learn more about:

- Manual crimpers and decrimpers
- Electronic crimpers and decrimpers







Snap vials and associated caps

(2 mL vials, 11 mm caps)

2 mL glass snap vials

Performance Level 2 for high-throughput applications



Comments

- Snap
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- Specification certified

For use with 11 mm snap caps or 11 mm crimp caps









Available packs		
100/pack	6ARV11-1P	6ARV11-2P
10 x 100/pack	6ARV11-1PT	6ARV11-2PT
50 x 100/pack	6ARV11-1PF	6ARV11-2PF

Need a smaller volume?

• Why not use with our polyspring glass inserts





Snap vials and associated caps Continued

(2 mL vials, 11 mm caps)

11 mm snap caps

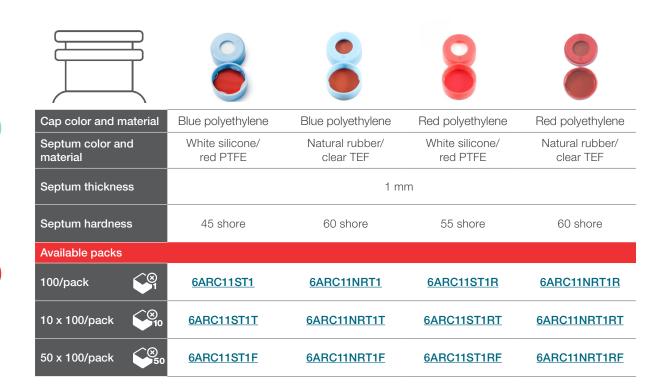
Performance Level 2 for high-throughput applications



Comments

- Snap closure (11 mm)
- Specification certified

For use with 11 mm glass or plastic snap vials









Screw vials and associated caps

(4 mL vials, 13 mm caps)

4 mL glass screw vials

Performance Level 2 for high-throughput applications



Comments

- Screw
- 15 x 45 mm (diameter x height) flat base
- Specification certified

For use with 13 mm screw caps













800 μL		
6ASV13-1P		6ASV13-2P
	6ASV13-1P	







Screw vials and associated caps Continued

(4 mL vials, 13 mm caps)

13 mm screw caps

Performance Level 2 for high-throughput applications



Comments

- Short thread screw closure (13 mm/13-425)
- Specification certified

For use with 4 mL screw vials (and other vials with screw 13 mm dimensions)



Order now!



36





(4 mL vials, 13 mm caps)

10 mL glass screw headspace vials

Performance Level 2 for high-throughput applications



Comments

- Screw
- 22.5 mm x 46 mm (diameter x height) round bottom base
- Marking spot
- Specification certified

For use with 18 mm screw caps







10 mL

8 mL







Residual volume	0.8 mL	0.8 mL
Available packs		
100/pack	<u>6ASV10-1</u>	<u>6ASV10-2</u>
10 x 100/pack	<u>6ASV10-1T</u>	6ASV10-2T
50 x 100/pack \$\infty\$ 50	6ASV10-1F	6ASV10-2F





(4 mL vials, 13 mm caps)

20 mL glass screw headspace vials

Performance Level 2 for high-throughput applications



Comments

- Screw
- 22.5 mm x 75 mm (diameter x height) round bottom base
- Marking spot
- · Specification certified

For use with 18 mm screw caps













Vial color and material	Clear glass	Amber glass
Total volume	20 mL	20 mL
Usable volume	18 mL	18 mL
Residual volume	0.8 mL	0.8 mL
Available packs		
100/pack	6ASV20-1	6ASV20-2
10 x 100/pack	6ASV20-1T	6ASV20-2T
50 x 100/pack \$\infty\$ 50	6ASV20-1F	6ASV20-2F







Headspace crimp vials and associated caps

(10 mL - 20 mL vials, 20 mm caps)

10 mL glass crimp headspace vials

Performance Level 2 for high-throughput applications



Comments

- Crimp
- 22.50 mm x 46 mm (diameter x height) round bottom base with beveled edge rim
- Marking spot
- Specification certified

For use with 20 mm crimp caps



Vial color and material



Clear glass



Amber glass





Usable volume 8 mL

Residual volume 0.8 mL



Available packs		
100/pack	6ACV10-1R	6ACV10-2R
10 x 100/pack	6ACV10-1RT	6ACV10-2RT
50 x 100/pack	6ACV10-1RF	6ACV10-2RF





Headspace crimp vials and associated caps continued

(10 mL - 20 mL vials, 20 mm caps)

20 mL glass crimp headspace vials

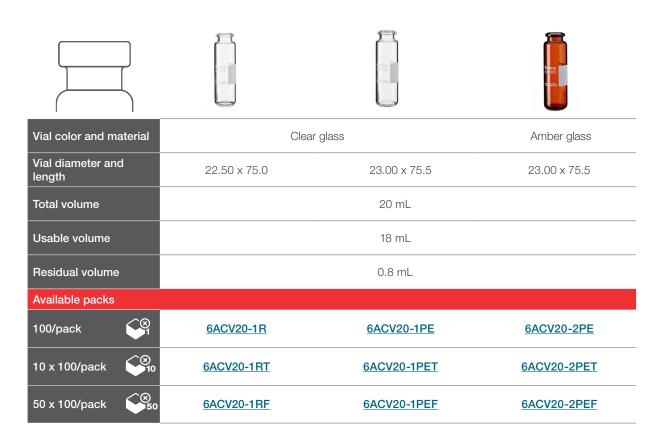
Performance Level 2 for high-throughput applications



Comments

- Crimp
- 22.50 mm x 75 mm (diameter x height) round bottom base with beveled edge rim (6ACV20-1R)
- 23 mm x 75.5 mm (diameter x height) round bottom base with beveled edge rim (6ACV20-1PE, 6ACV20-2PE)
- Marking spot
- Specification certified

For use with 20 mm crimp caps



<u>6ACV20-1PE</u> and <u>6ACV20-2PE</u> fit Perkin-Elmer instruments





Headspace crimp vials and associated caps Continued

(10 mL - 20 mL vials, 20 mm caps)

20 mm crimp caps

Performance Level 2 for high-throughput applications



Comments

- Crimp closure (20 mm)
- Specification certified

For use with 10 mL and 20 mL crimp headspace vials (with neck size of 20 mm)

Use with 20 mm crimpers and decrimpers





Learn more about:

50 x 100/pack

- Manual crimpers and decrimpers
- Electronic crimpers and decrimpers

6ACC20-PFTF



6ACC20-ST1F



6APRCC20-ST1F 6AMCC20-ST3F 6AMCC20-STHF



Stoppers and septa

20 mm stoppers and septa

Performance Level 2 for high-throughput applications



Comments

Specification certified

For use with vials (e.g. 10 mL/20 mL crimp vials) with diameter neck size of 20 mm







Product description	Stopper (20 mm)	Septum (20 mm)
Color and material	Grey bromobutyl	White silicone/beige PTFE
Septum thickness	3.0 mm	3.2 mm
Septum hardness		45 shore
Available packs		



Available packs			
100/pack	€	6A20BS	6A20ST1
10 x 100/pack	⊗ 10	<u>6A20BST</u>	6A20BST
50 x 100/pack	(⊗ 50	6A20BSF	6A20BSF







Specification certified vial and cap kits, EPA kits, and scintillation kit

Specification certified screw vial and cap kits

Performance Level 2 for high-throughput applications



Comments

- 2 mL screw vial (9 mm) with short thread screw closure
- Marking spot
- Specification certified











Specification certified vial and cap kits, EPA kits, and scintillation kit

Continued

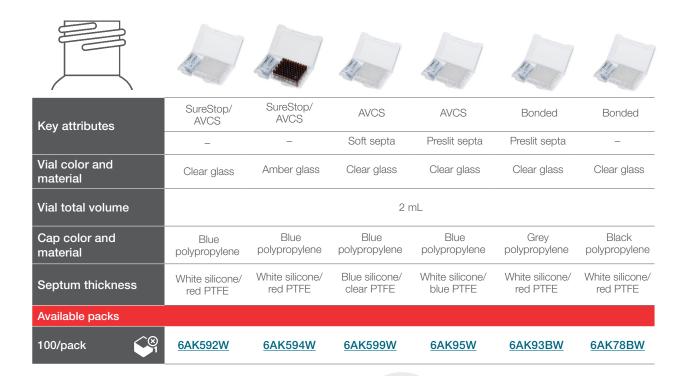
Specification certified screw vial and cap kits Continued

Performance Level 2 for high-throughput applications



Comments

- 2 mL screw vial (9 mm) with short thread screw closure
- Marking spot
- Specification certified









Specification certified vial and cap kits, EPA kits, and scintillation kits

Continued

EPA screw vial and cap kits

Performance Level 2 for high-throughput applications

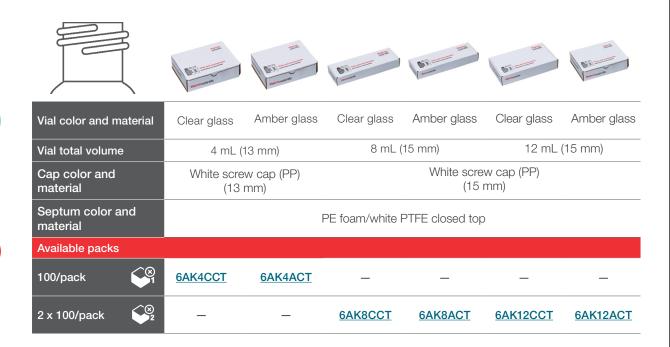


Comments

- 4 mL 40 mL screw vials with screw closures (13 mm 24 mm)
- Level 100 EPA vials

These are processed and packaged under a strict registered ISO Quality Management System. The products are not certified to EPA standards or pre-cleaned. Every case of product is labeled with its production number and is custody sealed to ensure reliable chain-of-custody.

EPA Screw Vials convenience kits are recommended for discrete water sampling under EPA 40 CFR 136 "Guidelines for Establishing Test Procedures for the Analysis of Pollutants" and EPA 40 CFR 141 "National Interim Primary Drinking Water Regulations: Control of Trihalomethanes in Drinking Water".









Specification certified vial and cap kits, EPA kits, and scintillation kit

Continued

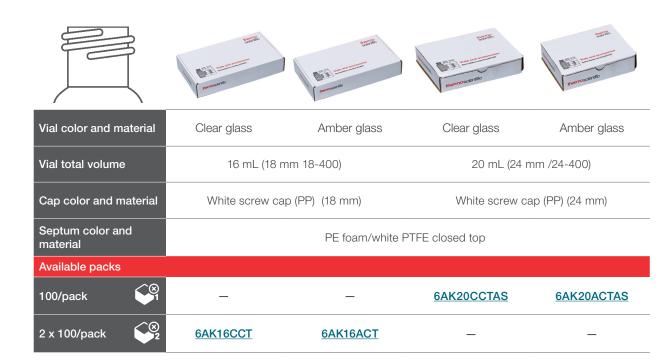
EPA screw vial and cap kits Continued

Performance Level 2 for high-throughput applications



Comments

- 4 mL 40 mL screw vials with screw closures (13 mm 24 mm)
- Level 100 EPA vials









Specification certified vial and cap kits, EPA kits, and scintillation kit

Continued

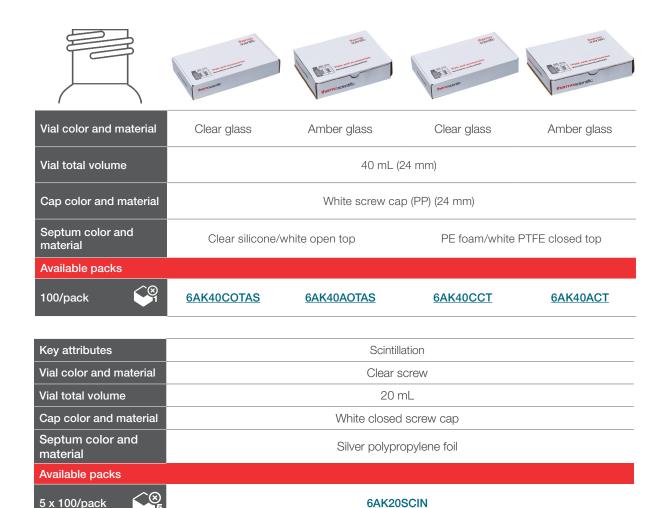
EPA screw vial and cap kits Continued

Performance Level 2 for high-throughput applications



Comments

- 4 mL 40 mL screw vials with screw closures (13 mm 24 mm)
- Level 100 EPA vials







Performance level 3: High performance



When sensitivity is a must

Protect your most valuable samples and deliver consistent, reproducible results for your most demanding analyses

Our Thermo Scientific™ SureSTART™ Performance Level 3 products are packed in clean rooms to protect them against environmental factors, and contain the lowest amounts/levels of metals, extractables and leachable; ensuring that you can get the sensitivity and selectivity from your most challenging analytes confidently and consistently.

If you are looking for the ultimate performance from your methods, whilst maintain the highest levels of and sample security and integrity, our Performance Level 3 products will meet your needs. Select the products with the three waves.

For analytes that are prone to glass adsorption why not try our GOLD-grade glass technology which has been specifically designed for these more challenging polar analytes, as well as our silanised vials and inserts

This offering includes Thermo Scientific SureStop vials, which, when used with 9 mm AVCS caps, ensure an optimal seal every time. The SureStop vial-AVCS cap system is specially designed to prevent screw thread vial failures such as cap tilt, cap deformities, dislodged septa or septa push through, thus prevents injection failures and sample evaporation.

Our Performance level 3 septa have the highest purity as they have been conditioned to remove all the low-mid boiling volatiles providing the lowest extractables and leachables within the collection. You can also find within this performance level soft septa options for ultimate needle performance, as these products offer protection for even the most fragile needles with the highest gauge, and SPME fibers. You can also find our high temperature compatible septa here.

Performance level 3

for high performance applications

- All products within this performance level are suitable for GC, HPLC/UHPLC, and nominal mass and high-resolution accurate mass (HR-AM) applications.
- Headspace vials and caps available from 6 mL 20 mL.
- Vials are identified by three waves and a convenient write-on patch as standard.
- Vials available as screw, SureStop, snap and crimp.
- Vials available in glass, GOLD-grade glass, silanized and TPX.
- Vials available as clear or amber glass.
- Volume sizes ranging from 0.2 mL to 20 mL covering limited sample volumes to headspace analyses.
- Vials with fixed inserts are available.
- Caps available as screw, screw AVCS, snap and crimp.
- Use Thermo Scientific Manual or Electronic Crimpers and decrimpers for easy application and removal of crimp caps.
- LC/GC Certified, MSCERT and MSCERT+ Kits can be found within performance level 3.
- Buy vials and caps in bulk for greater savings.

Specification certified

- All Thermo Scientific SureSTART vials are dimensionally verified.
- Inspected by automated optical and gauge inspection to ensure critical dimensions and tolerances.
- Meet all relevant requirements of US, EU, JPN Pharmacopeia.
- Uniform and defect-free

Lot traceable

- 100% traceable through the manufacturing process
- Certificate of Conformance available by lot number upon request

Performance level 3: High performance

Vials	Caps
0.2 mL TPX screw microvial	
Glass screw microvials	_
1.5 mL total recovery glass screw microvials	
1.7 mL high recovery glass screw microvials	9 mm screw caps
2 mL glass screw vials	
2 mL GOLD-grade glass screw vials	
Glass crimp microvials	
2 mL GOLD-grade glass crimp vial	11 mm orimn cono
2 mL glass crimp vials	11 mm crimp caps
Glass snap microvials	
1.5 mL total recovery glass snap microvials	
High recovery glass snap microvials	11 mm snap caps
2 mL glass snap vials	
Vial inserts for 2 mL vials	_
Glass crimp headspace vials	20 mm crimp caps
Crimpers an	d decrimpers
Electronic crimpers and decrimpers	-
К	its
LC/GC certified	MSCERT and MSCERT+
TOC	-



Screw vials and associated caps (<2 mL - 2 mL vials, 9 mm caps)



It is a transparent plastic (polymethylpentene) that is heat resistant and has excellent resealability.

0.2 mL TPX screw microvial with glass insert

Performance Level 3 for high performance analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) fixed conical glass insert
- No marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw cap







Vial color and	TPX with fixed insert	
material	Clear glass, amber transparent plastic	
Total volume	200 μL	
Usable volume	150 μL	
Residual volume	1 μL	



Available packs		
100/pack		60180-1655





Watch this short microsampling video







(<2 mL - 2 mL vials, 9 mm caps)

Glass screw microvials

Performance Level 3 for high performance analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) fixed conical insert, flat bottom base
- Marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps













Available packs		
100/pack	6PSV9-03FIVP	6PSV9-03FIVAP
10 x 100/pack	8 10 6PSV9-03FIVPT	6PSV9-03FIVAPT
50 x 100/pack	8) 6PSV9-03FIVPF	6PSV9-03FIVAPF









(<2 mL - 2 mL vials, 9 mm caps)

1.5 mL total recovery glass screw microvial

Performance Level 3 for high performance analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) total recovery internal base
- No marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps











Available packs	
100/pack	<u>6PSV9-TR1</u>
10 x 100/pack	6PSV9-TR1T
50 x 100/pack	6PSV9-TR1F







(<2 mL - 2 mL vials, 9 mm caps)

1.7 mL high recovery glass screw microvial

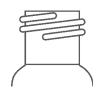
Performance Level 3 for high performance analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height) internal V-base
- No marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps











ricsiadai voidilic	τ μ ι
Available packs	
100/pack	6PSV9-V1
10 x 100/pack	6PSV9-V1T
50 x 100/pack	6PSV9-V1F









(<2 mL - 2 mL vials, 9 mm caps)

2 mL Gold-grade glass screw vials

Performance Level 3 for high performance analysis



Comments

- Short thread screw
- 12 mm x 32 mm (diameter x height), flat bottom base
- Marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps















Learn more about our quality materials:

• Thermo Scientific SureSTART products—Innovation





(<2 mL - 2 mL vials, 9 mm caps)

2 mL glass screw vials

Performance Level 3 for high performance analysis



Comments

- Screw
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- Specification certified

For use with 9 mm screw caps, or 9 mm AVCS screw caps





• Why not use with our polyspring glass inserts







(<2 mL - 2 mL vials, 9 mm caps)

9 mm screw caps Continued

Performance Level 3 for high-throughput applications



Comments

- Short thread screw
- Specification certified

For use with <2 mL - 2 mL screw vials





6PSC9TST

6PSC9TSTT

6PSC9TSTF



6PSC9STS1

6PSC9STS1T

6PSC9STS1F 6PSC9ST1F





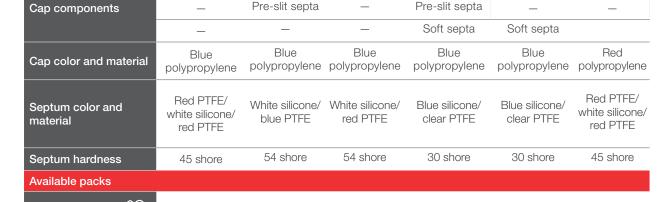
AVCS Cap



6PSC9ST101X 6PSC9ST101 6PSC9TSTR







6PSC9ST1

6PSC9ST1T



100/pack

10 x 100/pack

50 x 100/pack







6PSC9TSTRT

6PSC9TSTRF



(<2 mL - 2 mL vials, 9 mm caps)

9 mm screw caps

Performance Level 3 for high-throughput applications



Comments

- Short thread screw
- Specification certified

For use with <2 mL - 2 mL screw vials





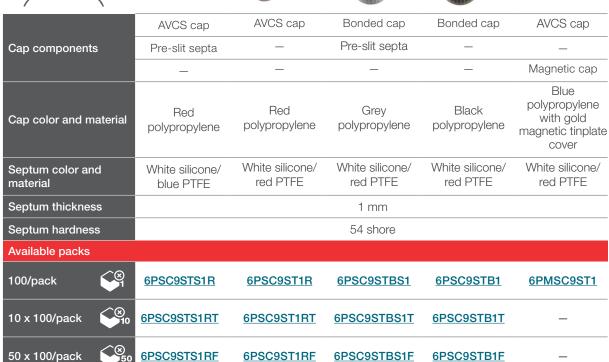




















Crimp vials and associated caps

(<2 mL - 2 mL, 11 mm caps)

Glass crimp microvials

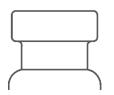
Performance Level 3 for high performance analysis



Comments

- Crimp
- 12 mm x 32 mm (diameter x height) fixed conical insert, flat bottom base
- Marking spot
- Specification certified

For use with 11 mm crimp caps













		· P=
Available packs	_	
100/pack	6PCV11-03FIVP	6PCV1103FIVAP
10 x 100/pack	6PCV11-03FIVPT	6PCV1103FIVAPT
50 x 100/pack	6PCV11-03FIVPF	6PCV1103FIVAPF







Crimp vials and associated caps continued

(<2 mL - 2 mL, 11 mm caps)

2 mL GOLD-grade crimp vials

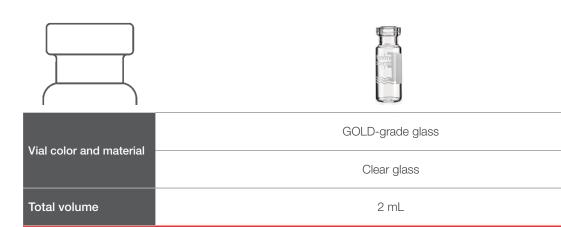
Performance Level 3 for high performance analysis



Comments

- Crimp
- 12 mm x 32 mm (diameter x height)
- Marking spot
- Specification certified

For use with 11 mm crimp caps





Need a smaller volume?

Available packs

100/pack

• Why not use with our glass inserts

∕⊗



Learn more about our quality materials:

6PCV11G

• Thermo Scientific SureSTART products—Innovation







Crimp vials and associated caps continued

(<2 mL - 2 mL, 11 mm caps)

2 mL glass crimp vials

Performance Level 3 for high performance analysis



Comments

- Crimp
- 12 mm x 32 mm (diameter x height)
- Marking spot
- Specification certified

For use with 11 mm crimp caps



Need a smaller volume?

• Why not use with our glass inserts





Crimp vials and associated caps continued

(<2 mL - 2 mL, 11 mm caps)

11 mm crimp caps

Performance Level 3 for high performance analysis

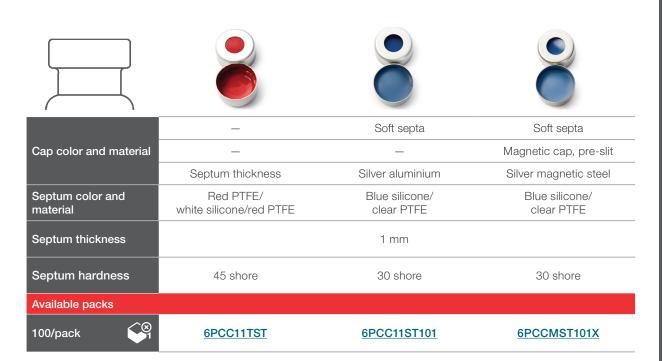


Comments

- Crimp closure (11 mm)
- Specification certified

For use with <2 mL - 2 mL crimp vials, or <2 mL - 2 mL snap vials

Use with 11 mm crimpers and decrimpers





Learn more about:

- Manual crimpers and decrimpers
- Electronic crimpers and decrimpers











Snap vials and associated caps

(<2 mL - 2 mL vials, 11 mm caps)

Glass snap microvials

Performance Level 3 for high performance analysis



Comments

- Snap
- 11 mm x 32 mm (diameter x height) fixed conical insert, flat bottom base
- Marking spot
- · Specification certified

For use with 11 mm snap caps or 11 mm crimp caps









Vial color and material	Clear glass	Amber glass
Total volume	300 µL	
Usable volume	250 μL	
Residual volume	4 μL	



nesiduai voidille	4 μL		
Available packs			
100/pack	<u>6PRV11-03FIVP</u>	6PRV1103FIVAP	
10 x 100/pack	6PRV11-03FIVPT	6PRV1103FIVAPT	
50 x 100/pack \$\infty\$ \$\infty	6PRV11-03FIVPF	6PRV1103FIVAPF	







(<2 mL - 2 mL vials, 11 mm caps)

1.5 mL total recovery glass snap microvials

Performance Level 3 for high performance analysis



Comments

- Snap
- 12 mm x 32 mm (diameter x height) total recovery internal base
- No marking spot
- Specification certified

For use with 11 mm snap caps



Vial color and material

Total volume

Residual volume



Clear glass

1.5 mL

1 µL







Available packs	
100/pack	6PRV11-TR1
10 x 100/pack	6PRV11-TR1T
50 x 100/pack \$\infty\$50	6PRV11-TR1F









(<2 mL - 2 mL vials, 11 mm caps)

High recovery glass snap microvials

Performance Level 3 for high performance analysis



Comments

- Snap
- 12 mm x 32 mm (diameter x height) internal V-base
- No marking spot
- · Specification certified

For use with 11 mm snap caps









Vial color and material	Silanized glass	Clear glass	
Total volume	1.7 mL	1.5 mL	
Usable volume	1.5 mL 1.2 mL		
Residual volume	4 μ	ıL	



Available packs		
100/pack	6PRV11-S1V	6PRV11-15V
10 x 100/pack	<u> </u>	6PRV11-15VT
50 x 100/pack		6PRV11-15VF







(<2 mL - 2 mL vials, 11 mm caps)

Glass snap vials

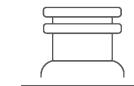
Performance Level 3 for high performance analysis



Comments

- Snap
- 12 mm x 32 mm (diameter x height)
- Marking spot
- Specification certified

For use with 11 mm snap caps











Usable volume	1.5 ML	
Available packs		
100/pack	6PRV11-1P	
10 x 100/pack	6PRV11-1PT	
50 x 100/pack	<u>6PRV11-1PF</u>	

Need a smaller volume?

• Why not use with our glass inserts







(<2 mL - 2 mL vials, 11 mm caps)

11 mm snap cap

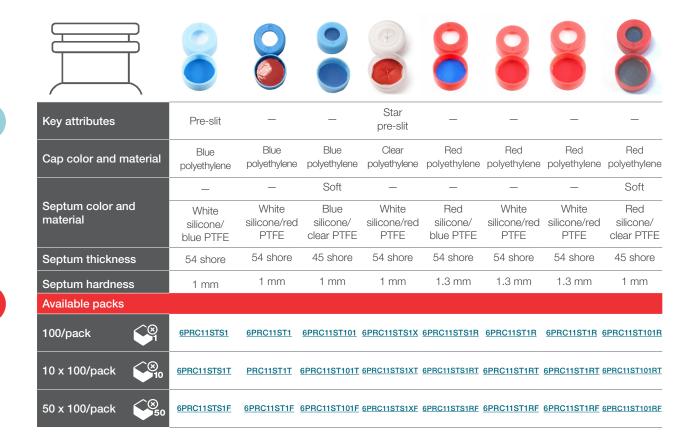
Performance Level 3 for high performance analysis



Comments

- Snap closure (11 mm)
- Specification certified

For use with <2 mL and 2 mL snap vials









video

Inserts for 2 mL vials

Performance Level 3 for high-throughput applications



Comments

- 6 mm x 31 mm (diameter x height)
- No marking spot
- Specification certified

For use with 2 mL screw vials, 2 mL snap vials or 2 mL crimp vials





Insert color and material	0.2 mL clear conical glass insert	0.3 mL clear conical glass insert, with PE polyspring	0.3 mL conical glass insert, with PE polyspring	0.4 mL clear conical glass insert, with pulled point	0.5mL clear flat bottom glass insert
Total volume	200 µL	300 µL	300 µL	400 µL	500 μL
Usable volume	150 µL	250 µL	250 μL	350 µL	450 μL
Residual volume	2 μL	4 μL	4 μL	4 μL	35 μL
Height	31 mm	30 mm	30 mm	31 mm	31 mm
Inner diameter	6 mm	6 mm	6 mm	6 mm	6 mm
Base style	Conical base	Conical base	Conical base	Conical base	Flat bottom
Available packs					
100/pack	_	6PME03C1SSP	6PME03C1SP	6PME04C1	_
10 x 100/pack	6PME02CG	6PME03C1SSPT	6PME03C1SPT	6PME04C1T	
50 x 100/pack	_	6PME03C1SSPF	6PME03C1SPF	6PME04C1F	6PME05F1



Learn more about:



Headspace crimp vials and associated caps

(6 mL - 20 mL vials, 20 mm caps)

6 mL, 10 mL and 20 mL glass crimp headspace vials

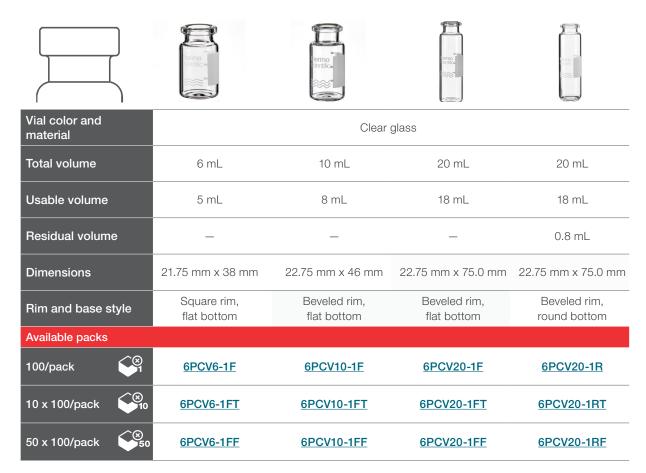
Performance Level 3 for high performance analysis



Comments

- Crimp (20 mm)
- Marking spot
- Specification certified

For use with 20 mm crimp caps









Headspace crimp vials and associated caps continued

(6 mL - 20 mL vials, 20 mm caps)

20 mm crimp caps

Performance Level 3 for high performance analysis



Comments

- Crimp closure (20 mm)
- Specification certified

For use with 10 mL and 20 mL crimp headspace vials (with neck size of 20 mm)

Use with 20 mm crimpers and decrimpers



















Learn more about:

- Manual crimpers and decrimpers
- Electronic crimpers and decrimpers







Specification certified, LC/GC certified, MSCERT and MSCERT+ kits

1. Specification certified kits

For everyday analysis

• Tested and certified for up to 15 critical physical specifications

2. LC/GC certified kits

For chromatographic analysis

- Tested and certified for up to 15 critical physical specifications
- Tested and certified using LC-UV and GC-FID to ensure that there are no residual manufacturing agents present in the vial
- · A certificate is provided with each kit

3. MSCERT and MSCERT+ kits

For use with mass spectrometry systems

- Our mass spec certified vials carry our highest level of certification and are recommended for low adsorption
- Tested and certified for up to 15 critical physical specifications
- Tested using LC-MS and GC-MS for low contamination
- · Certification comes with the kit
- MSCERT+ kits are pre-cleaned and certified for particle count
 - Highly recommended for direct injection analysis (DIA)

	MSCERT	MSCERT+
Proprietary cleaning process to reduce particulates	-	+
Packaged in cleanroom conditions	-	+
Cleanest product available on the market	_	+
Vial/closure combination tested by GC/MS and LC/MS		+
Batch specific test certificate with MS-chromatograms		+
Glass surface with very low adsorption tendencies for all polar compounds		+
Closures contain very soft ultra-low bleed silicone septa with PTFE layer or bonded caps		+
Optimised for trace analysis		+



Specification certified, LC/GC certified, MSCERT and MSCERT+ kits continued

Specification certified screw vial and cap kits

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) fixed conical glass insert
- No marking
- Specification certified

For use with short thread screw cap closure









1	1	
		Bonded caps
Key attributes	5	TPX vials
		0.2 mL with fixed glass insert
Vial color and material	d	Amber TPX
Vial total volu	ume	200 μL
Vial usable v	olume	150 μL
Vial residual	volume	1 μL
Cap color an material	d	Black screw cap
Septa color a material	and	White silicone/red PTFE
Septa thickn	ess	1 mm
Available pac	ks	
100/pack	<u> </u>	<u>6PK1655</u>







Specification certified, LC/GC certified, MSCERT and MSCERT+ kits continued

Specification certified screw vial and cap kits Continued

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- Specification certified

For use with short thread screw cap closure







,	
	GOLD-grade glass
Key attributes	SureStop vials
	AVCS caps
Vial total volume	2 mL
Vial color and material	Clear glass
Cap color and material	Blue screw cap (PP)
Septa color and material	White silicone/red PTFE
Septa thickness	1 mm
Available packs	
100/pack	6PKG592W





Learn more about our quality materials:

• Thermo Scientific SureSTART products—Innovation

Analyzing polar compounds/compounds prone to glass adsorption?

• We recommend using our GOLD-grade glass vials





LC/GC certified kits – 2 mL vials with 9 mm caps

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) flat bottom base

White silicone/

red PTFE

Marking spot

Septa color and

material

LC/GC certified

For use with short thread screw cap closure







red PTFE

White silicone/ White silicone/

blue PTFE

blue PTFE







White silicone/red PTFE



MSCERT kits

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- MSCERT certified





/						
	SureStop vials					
Key attributes	AVCS caps					
	— Pre-slit septaPre-slit septa					
Vial total volume		2 m	L			
Vial color and material	Clear glass	Amber glass	Clear glass	Amber glass		
Cap color and material	Blue screw cap (PP)					
Septa color and material	Blue silicone/clear PTFE septa					
Septa thickness	1 mm					
Available packs						
100/pack	6PMSCK534W	6PMSCK535W	6PMSCK540W	6PMSCK541W		









MSCERT kits Continued

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- MSCERT certified





/					
		Pre-slit	septa		
Key attributes	Bonded caps				
	-	_	SureStop vials	SureStop vials	
Vial total volume	2 mL	_	_	_	
Vial color and material	Amber glass	Amber glass	Clear glass	Amber glass	
Cap color and material	Blue screw cap (PP)				
Septa color and material	White silicone/beige PTFE				
Septa thickness		1 mm			
Available packs					













MSCERT+ kits

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- MSCERT+ certified and pre-cleaned





,					
	SureStop vials				
Key attributes	AVCS caps - Pre-slit septa Pre-slit				
Vial total volume		2 m	L		
Vial color and material	Clear glass	Amber glass	Clear glass	Amber glass	
Cap color and material	Blue screw cap				
Septa color and material	Blue silicone/clear PTFE				
Septa thickness	1 mm				
Available packs					
100/pack	6PMCK34W	6PMCK35W	6PMCK40W	6PMCK41W	









MSCERT+ kits Continued

Performance Level 3 for high performance analysis



Comments

- Short thread screw kit
- 12 mm x 32 mm (diameter x height) flat bottom base
- Marking spot
- MSCERT+ certified













/					
	SureSto	op vials	Fused-insert		
Key attributes		Bono	ded		
	_	_	_	Pre-slit septa	
Vial total volume	2 mL	2 mL	0.3 mL	0.3 mL	
Vial color and material	Clear glass	Amber glass	Clear glass	Clear glass	
Cap color and material	Blue screw cap	Blue screw cap	Blue screw cap	Grey screw cap	
Septa color and material	Clear silicone/clear PTFE				
Septa thickness	1 mm				
Available packs					
100/pack	6PMCK341W	6PMCK351W	6PMCK30LVW	6PMCK36LVW	











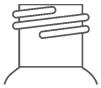
MSCERT+ kits Continued

Performance Level 3 for high performance analysis



Comments

- High recovery vial
- Short thread screw vial
- 12 mm x 32 mm (diameter x height) flat bottom base
- MSCERT+ certified







	Total recovery
Key attributes	Bonded
	Pre-slit Pre-slit
Vial total volume	1.5 mL
Vial color and material	Clear glass
Cap color and material	Grey screw cap
Septa color and material	Clear silicone/clear PTFE
Septa thickness	1 mm
Available packs	



Available packs		
100/pack	<u> </u>	6PMCK39TR







TOC certified screw vial and cap kits

Performance Level 3 for high performance analysis



Comments

- TOC certification (20 ppb)
- TOC certification (10 ppb)

Our low-level certified vials for Total Organic Carbon testing and sampling are manufactured, tested and packaged by exacting standards.

Thermo Scientific™ TOC Certified Containers are certified to contribute <10ppb or < 20ppb TOC as background.



Vial description	40 mL (24 mm) screw glass vial			
Vial color and material	Clear			
Cap description	Bonded white screw cap (24-400) (PP)			
Septum color and material	White silicone/clear PTFE open top			
Septum thickness	3 mm			
Septum hardness	50 shore			
Certification level	TOC certification (20 ppb) TOC certification (10 ppb)			
Available packs				
72/pack	6PK40TOC20	6PK40TOC10		









SureSTART vials and caps accessories



Manual crimpers and decrimpers

Manual crimpers and decrimpers

Achieve secure, repeatable crimps or remove seals with minimized risk of damage



Use Thermo Scientific™ SureSTART™ vial crimpers and decrimpers to manually attach or remove crimp caps from vials, respectively. These manual crimpers and decrimpers are available in 8 mm, 11 mm, 13 mm, and 20 mm sizes and allow you to easily seal or remove crimp caps reliably.









Product description	Red manual crimper	Red manual crimper	Red manual crimper	Red manual crimper	Stainless steel manual crimper
Suitable for	8 mm crimp caps	11 mm crimp caps	13 mm crimp caps	20 mm crimp caps	20 mm crimp caps
Available packs					
1/pack	60180-CR8	60180-CR11	60180-CR13	60180-CR20	60180-CR20SS







Product description	_	Black manual decrimper	Black manual decrimper	_	Black manual decrimper
Suitable for	_	11 mm crimp caps	13 mm crimp caps	_	20 mm crimp caps
Available packs					
1/pack	_	60180-DCR13	60180-DCR11	_	60180-DCR20



Electronic crimpers and decrimpers

Our electronic Thermo Scientific crimper portfolio includes tools for 8 mm, 11 mm, 13 mm, and 20 mm crimp caps.

The tools provide all important settings like actual crimp power at one glance. The hand-held crimpers and decrimpers allow crimping of vials with aluminium, pressure release and bi-metal caps while remaining in most sample trays.

The crimp head selection includes also special crimp heads for 13 mm and 20 mm flip-off caps, further specials are available on request.

Attach or remove crimp vial seals with high sample security with a simple, one-handed push of a button.

Electronic hand-held crimpers and decrimpers

The battery charge icon on the color screen of the handheld tools changes to red when battery is low. Each handheld tool comes with fully rechargeable lithium ion battery and universal power supply/recharger and international plug adapters.

For steel caps and/or high numbers of crimp or decrimp processes per day we recommend the Thermo Scientific™ High-Power Crimp Station as it provides the highest crimping force independent from battery charge status.





Versatile and programmable crimp station

Electronic crimpers and decrimpers features and benefits

- Tools available for use with 8 mm, 11 mm, 13mm, and 20 mm crimp vial caps
- · Available as handheld and high-power models
- These electronic vial crimpers also feature adjustable settings for best crimp results and a motor with extended lifetime and no particle emission
- Interchangeable crimper and decrimper jaw sets for Programmable Electronic High-Power Crimp Stations
- · One hand operation with a simple push of a button
- Error message feedback after the incorrect crimping process
- Adjustable settings for best crimp results
- Actual crimp power setting displayed on the color screen.
- 8 different languages available—EN, CN, JA, DE, FR, ES, IT, KO
- Motor with extended lifetime and no particle emission
- Free hands for faster crimping operations with the adjustable Thermo Scientific™ Accessory Base for Programmable Electronic High-Power Crimp Stations. (ECRH-STAND)
- Each High-Power Crimper comes with 12-volt DC supply with power cord
- Crimp and Decrimp Heads for the High-Power Crimper are included in the kits or available separately



Electronic hand-held battery-operated crimper (black) Generation 4









Electronic hand-held battery-operated decrimper (black) Generation 4







Electronic crimper for FTFO and Flip-Off crimper









Electronic high-power programmable crimp station

Q	



Product description	Electronic high-power crimp station (without crimp heads) (black). Generation 2				
Available packs					
1/pack	60180-ECRHB				

Electronic high-power programmable crimper kits





Product description	Electronic high-power programmable crimper kit				
Suitable for	11 mm	13 mm	20 mm		
Include	11 mm crimp head 11 mm decrimp head	13 mm crimp head 13 mm decrimp head	20 mm crimp head 20 mm decrimp head		
Available packs					
1/pack	60180-ECRH11KIT	60180-ECRH13KIT	60180-ECRH20KIT		







Accessories for electronic high-power programmable crimper

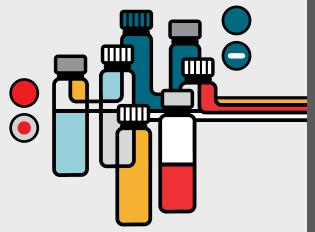


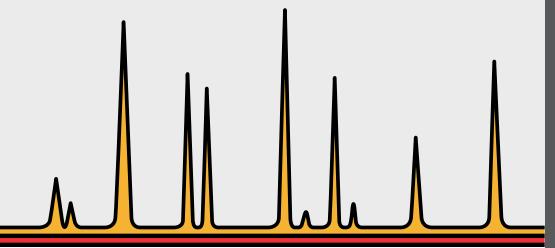
Accessories for electronic high-power programmable decrimper





Exchangeable jaw sets for crimping or decrimping of aluminum and stainless steel seals on various diameter vials





WebSeal Performance Level 1 products



Well plates and mats

Performance Level 1 for everyday analysis

A full selection of high quality sample well plates for your UHPLC, LC and GC applications

We offer a comprehensive range of Thermo Scientific[™] 96- and 384- well plates for complex and routine analyses in high-throughput screening laboratories.

We offer a broad selection of polypropylene (PP) well plates that meet ANSI and SBS standards with different sealing options and fit most manifolds, autosamplers, and robots.



Handle more samples in less time

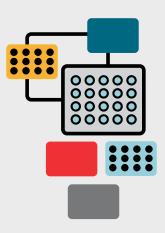
· Low volume and high recovery cavity

Solutions for all applications

Chromatography tested for solvent compatibility and inertness

Ultimate sample security

 Low-leachable, high-purity materials and manufacturing processes





Performance Level 1 for everyday analysis

WebSeal well plates

Plastic, non-coated, non-sterile, chromatography tested



- Thermo Scientific[™] WebSeal[™] well plates are manufactured from a GC/MS tested polypropylene material
- Microplates are chemically and thermally resistant and will tolerate temperatures from -80° C to +121°C
- SBS and ANSI standard footprint design for broad instrument compatibility
- Microplates are ideal for pharmaceutical applications, sample collection and storage, combinatorial chemistry and HTS applications
- U- and V- bottom wells for optimal sample recovery











Description	Total height	Well format	Total volume (µL)	Working volume range µL/well	Cat. no.	Pack size
96 well microplate,	14.4	V-Shape,	450	10-400 -	60180-P100	20
round well	14.4	8 mm diameter	450	10-400	60180-P130	120
	26.5	U-shape,	1100	50-900	60180-P154	50
96 well plates, round well	31.6	8 mm diameter,	1300	50-1000 -	60180-P103	5
	31.0	mid height plate	1300		60180-P133	50
	45.0	U-shape, 8 mm diameter, 2000 deep-well plate	2000	50-1900 -	60180-P104	5
			2000		60180-P124	50
OC door well plate	31.0	U-shape, square, mid height plate	1600	50-1300	60180-P155	96
96 deep well plate, square well	44.0	V-Shape,	2000	50-1900	60180-P105	5
	44.0	square, deep-well plate	2000	50-1900 -	60180-P135	50
	15.5	V-Shape,	145	4-120 -	60180-P109	10
	10.0	square, micro titer plate	140	4-120 -	60180-P129	100
384 well microplate	22.0	V-shape, square, mid-height plate	252	5-240 -	60180-P107	5
	22.0	V-shape, square, mid-height plate		U-24U -	60180-P127	100



Performance Level 1 for everyday analysis

WebSeal mats and sealing tapes, non-sterile

For plates with round and square wells of 8 mm or 384 well plates



- Mats manufactured of EVA (Ethylene-vinyl acetate) or pure silicone with or without PTFE coating
- The footprint permits plates to be securely stacked without robotic arm interference
- Eliminates cross contamination of samples
- Dry heat autoclavable (only silicone mats) with excellent chemical compatibility, withstand low temperature to -80°C
- Resists coring and tearing
- Superior resealability after multiple injections
- Available pre-slit for easy penetration and reduced vacuum formation
- Sealing tapes minimize evaporation and protect samples from contamination and spilling.
- Adhesive seals effectively seal all microplate formats
- Wide range of adhesive seals for every assay
- Thin, lightweight tapes seal onto the plate with a convenient, handheld applicator (available separately, cat. no. 60180-M950)







Performance Level 1 for everyday analysis

WebSeal mats and sealing tapes, non-sterile Continued

For plates with round and square wells of 8 mm or 384 well plates







WebSeal Performance Level 2 products



Well plates and mats

Performance Level 2 for high-throughput applications

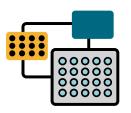
WebSeal well plates

Plastic, non-coated, non-sterile, certified



- Polypropylene microplates are manufactured from ultra low bleed high purity basis resin
- Plates are fully LOT tested by GC-MS and LC/MS for organic extractables
- Microplates are chemically and thermally resistant and will tolerate temperatures from -80°C to +121°C
- SBS and ANSI standard footprint design for broad instrument compatibility
- Microplates are ideal for pharmaceutical applications, sample collection and storage, combinatorial chemistry and HTS applications
- U- and V- bottom wells for optimal sample recovery, Total V-plates for low volume applications







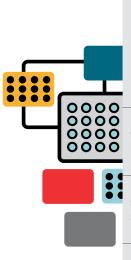
Performance Level 2 for high-throughput applications

WebSeal well plates Continued

Plastic, non-coated, non-sterile, certified







	Description	Total height	Well format	Total volume (μL)	Working volume range μL/well	Cat. no.	Pack size
	96 well microplate, low volume	15.0	Total V-shape, 5.6 mm diameter	100	5-80	60180-P210	50
			Flat bottom,	350 –	10-300	60180-P205	100
			7 mm diameter	330 -	10-300	60180-P215	10
	96 well microplate,	14.7	U-shape, 7 mm diameter	270	10-250	60180-P206	100
	round well	14.7		270	10-250	60180-P216	10
			V-shape, 7 mm diameter	220	10-190	60180-P207	100
_				220	10-190	60180-P217	10
	96 well mid height plates,	41.6	U-shape,	1200	50-1100	60180-P201	50
) _	round well	41.6	7 mm diameter	1200	50-1100	60180-P211	5
	96 deep well plate,	44.4	V-shape, 8 mm diameter		E0 1000	60180-P202	50
	square well	44.4	8 mm diameter	2000	50-1900	60180-P212	5
		444	U-shape,	58	0.05	60180-P203	60
		14.4	square, micro titer plate	58	2-35	60180-P213	10
	384 well microplate		V-shape, square, deep well plate	200	F 040	60180-P204	48
		30.2		300	5-240	60180-P214	6





Performance Level 2 for high-throughput applications

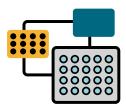
WebSeal mats, non-sterile

For certified well plates with 7 mm round well cavities, 8 mm square wells or 384 plates



- Manufactured of pure silicone with or without PTFE coating
- The footprint permits plates to be securely stacked without robotic arm interference
- Eliminates cross contamination of samples
- Dry heat autoclavable with excellent chemical compatibility, withstand low temperature to -80°C
- Resists coring and tearing
- Superior resealability after multiple injections
- Available pre-slit for easy penetration and reduced vacuum formation





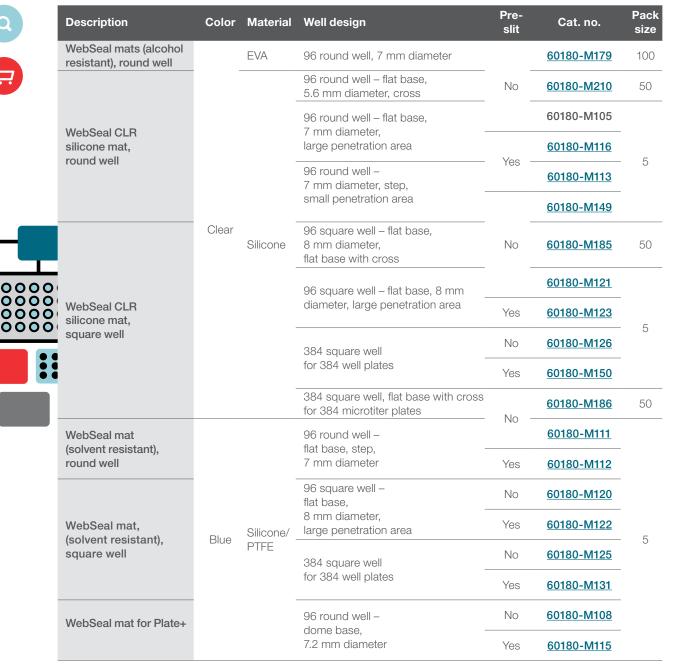


Performance Level 2 for high-throughput applications

WebSeal mats, non-sterile Continued

For certified well plates with 7 mm round well cavities, 8 mm square wells or 384 plates

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WebSeal Performance Level 3 products



Well plates and mats

Performance Level 3 for high performance analysis

WebSeal Plate+

Glass coated microplates



- High quality polypropylene microplates coated with 200nm thick layer of silicon dioxide
- Plate+ provides microplates with a chemical resistance similar to glass while retaining the advantages of polypropylene
- Cost-effective alternative to inserted glass vials
- Excellent for applications where plastic microplates are not applicable
- Plate+ is chemically and thermally resistant and will tolerate temperatures from -80° C to +80° C
- Lightweight, precision molded, cost-effective alternative to solid glass plates







Description	Total height	Well format	Total volume (µL)	Working volume (µL)	Cat. no.	Pack size
		U-shape, 7.2 mm diameter	300	250	60180-P300	
96 well microplate, round well	14.6	V-shape, 7.2 mm diameter	220	190	60180-P302	
		Flat bottom, 7.2 mm diameter	370	300	60180-P304	10
96 well mid height plate, round well	41.5	U-shape, 7.2 mm diameter	1.2 mL	1.0 mL	60180-P306	10
96 deep well plate, square well	44.0	V-shape, 8 mm diameter	2.4 mL	2.0 mL	60180-P308	
384 well microplate	14.4	Square-rounded, flat, micro titer plate	120	90	60180-P310	
	22.0	Square-rounded, U-shape, deep well plate	240	180	60180-P312	6



Performance Level 3 for high performance analysis

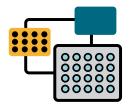
WebSeal glass inserted plate kits

With 96-position mats



- Convenient wellplate kits with pre-assembled glass vials
- · Replacement parts for kits available separatel
- Unique cutting tool allows removal of individual samples with the seal in place, eliminating cross contamination
- Mats with solid plugs are used for sample storage







Performance Level 3 for high performance analysis

WebSeal glass inserted plate kits Continued

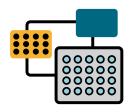
With 96-position mats

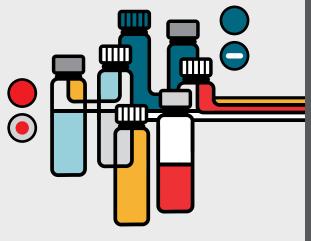


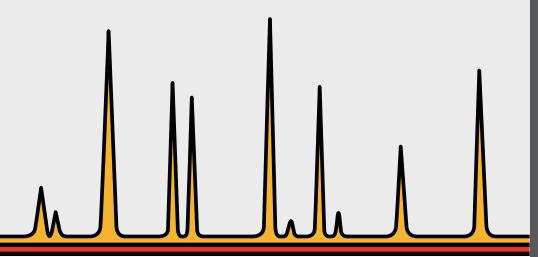


Kit type	Vial material	Total volume (μL)	Vial dimension (mm)	Profile	Mat material	Total height (mm)	Vial cat. no.	Mat cat. no.	Kit cat. no.	Pack size
96 well small volume microplate with sealing mat	Clear	500	6.5 x 31	Taper		32.0	60180-V100	60180-M151	60180-K100	5
96 well small volume microplate	glass -	700	6.5 x 41.4		Silicone/ PTFE	44.0	60180-V101	60180-M151	60180-K101	
with sealing mat and cutting tool	_	1100	7.45 x 38.5	Round -		41.5		60180-M153		5
96 deep well plate with sealing mat	l Clear	1500	7.25 x 60.5	nound	Silicone/	64.5		60180-M153		
96 square well plate with sealing mat	glass	1000	7.6 x 45	Con-	PTFE	47.3	-	60180-M111	60180-K107	1
96 square well plate with sealing mat		1000	7.0 X 40	strict	Precut	47.3	_	60180-M112	60180-K108	I









WebSeal kit accessories



WebSeal kit accessories

WebSeal 96 well mats

Silicone/PTFE











Kit type	Details	Pre-slit	Cat. no.	Pack size
96 well WebSeal mat	60180-K100, 60180-K101, -	No	60180-M151	
90 Well WebSeal Hat	60180-K103	Yes	60180-M152	
96 well WebSeal mat	No <u>60180</u> 60180-K104,		60180-M153	-
	60180-K106	Yes	60180-M154	- 5
96 well WebSeal mat,	60180-K107	No	60180-M111	-
welled plugs	60180-K108	Yes	60180-M112	-
WebSeal cutter for vial removal	_	-	60180-M975	1





WebSeal kit accessories Continued

Plate vials

For 96 wells



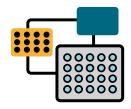






Kit type	Vial material	Total volume (μL)	Vial dimension (mm)	Profile	Cat. no.	Pack size
	Clear glass	500	6.5 x 31	Taper	60180-V100	
Micro titer plate vial for 96 wells	Oleai glass	700	6.5 x 41.4	тарег	60180-V101	
		1100	7.45 x 38.5		60180-V104	500
Deep well plate vial for 96 wells	Clear glass	1500	7.25 x 60.5	Round	60180-V106	







WebSeal kit accessories

Well plates and racks













Kit type	Vial material	Total volume (μL)	Profile	Total height (mm)	Cat. no.	Pack of
Plastic 96 round well micro titer plate (60180-K100)	_	800	V-shape, 7 mm diameter	31.5	60180-P400	5
PP 96 round well micro rack (60180-K101, K102)	PP	_	U-shape, 7 mm diameter	41.6	60180-P211	5
PP 96 well square well plate (60180-K107/108/109)	DD	0000	U-shape, square	44.0	60180-P403	1
PP 96 well square well plate (60180-K106)	. PP	2000 —	V-shape, square	- 44.0 -	60180-P212	5





WebSeal kit accessories Continued

Plate vials and accessories

For 96 wells



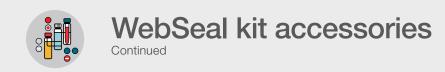






Kit type	Vial material	Total volume (μL)	Vial dimension (mm)	Profile	Septum	Cat. no.	Pack of
Micro titer plate vial for 96 wells		100	5.7 x 15.5	Flat bottom	-	60180-V108	
Deep well plate vial for 96 wells	Cloor gloss	350	6 x 42.5	Taper	_	60180-V109	960
Square well vial for 96 Wells	- Clear glass -	1000	7.6 x 45.9	Round -	_	60180-V110	900
MTRS vial for 96 wells		800	7.6 x40	Hourid	_	60180-V111	
PE cap, red, center hole for 96 Well Plate Inserts		_	_	_	Silicone/ PTFE, pre-slit, 45°	60180-C100	96
8mm PE plug, blue, for 60180-K204	_	_	_	_	PE plug	60180-C101	00
DW-block, PP, 96 positions		1200	_	U-shape	_	60180-P405	
Micro-tube-rack-system, PP, 96 positions		_	_	_	_	60180-P407	





WebSeal clear glass inserted plate kits

With individual closures

- 96 position block systems with glass inserts are used when the pure PP block is not inert enough
- Inserts manufactured from clear, Type 1 Class A or amber, Type 1 Class B borosilicate glass
- Inserts are sealed individually with a PE Cap Seal and can be easily removed and used externally without risk of losing sample
- The products can be obtained as individual components or as completely assembled, ready-to-use convenience blocks















Kit type	Total volume (μL)	Vial dimension (mm)	Profile	Septum	Vial cat. no.	Cap cat. no.	Kit cat. no.	Pack size	
96 well microplate	100	5.7 x 15.5	Flat bottom	Silicone/ PTFE, pre-slit, 45°				60180-K200	
96 deep well Plate	350	6 x 42.5	Taper		60180-V109	60180-C100	60180-K201		
96 square	1000	7.6 x 45.9	Silicone/ PTFE, 45°		PTFF, 45°		-	60180-K202	1
well plate	1000	7.6 x 45.9	Round	Silicone/PTFE, pre-slit, 45°	<u>00100-V110</u>		60180-K203		
96 micro- tube-rack- system	800	7.6 x 40		PE plug	60180-V111	60180-C101	60180-K204		



WebSeal kit accessories

Barcoded well plates

For Thermo Scientific™ Vanquish™ Systems

Comments

- These well plates provide advanced sample security and sample integrity.
- This secure choice offers a tested portfolio for chromatography applications
- Barcoded well plates have an assured plate fit and a pre-applied orientation barcode in the correct reader position; therefore there is no risk of placing the plate incorrectly
- The secured side orientation in the autosampler alleviates the risk of starting the sequence in the wrong plate orientation
- The instrument controls plate orientation and verifies the plate before implementing the sequence



60180-P206-216B



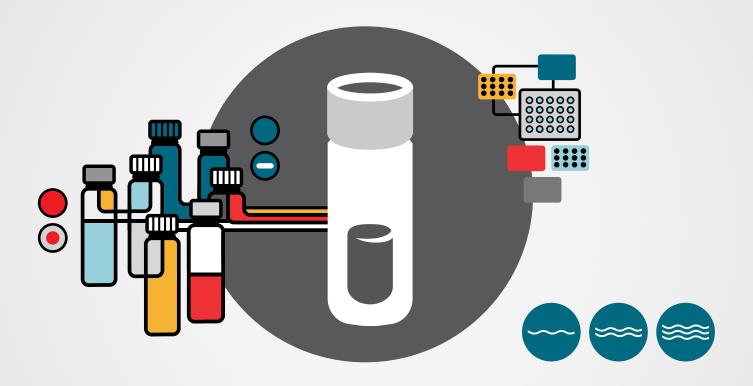






Description	Total height	Well format	Total volume µL/well	Working volume range µL/well	Cat. no.	Pack size
96 well microplate, round well, barcoded		U-shape,	270	10-250	60180-P206B	100
	14.7	7 mm diameter	210	10-200	60180-P216B	10
	14.7	V-shape, 7 mm diameter	220	10-190	60180-P207B	100
				10-190	60180-P217B	10
	31.6	U-shape, 8 mm diameter	1300	50-1000	60180-P103B	5
96 well mid height plate, round well,					60180-P133B	50
barcoded	41.6	U-shape,			60180-P201B	
	41.0	7 mm diameter	1000		60180-P211B	5
96 deep well plate,	44.0	V-shape,	2000	50-1900	60180-P105B	
square well, barcoded	44.0	square	2000		60180-P135B	50

For mats see previous pages with mats for 7 or 8 mm cavity diameter



Expect reproducible results with sample prep, columns and vials















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