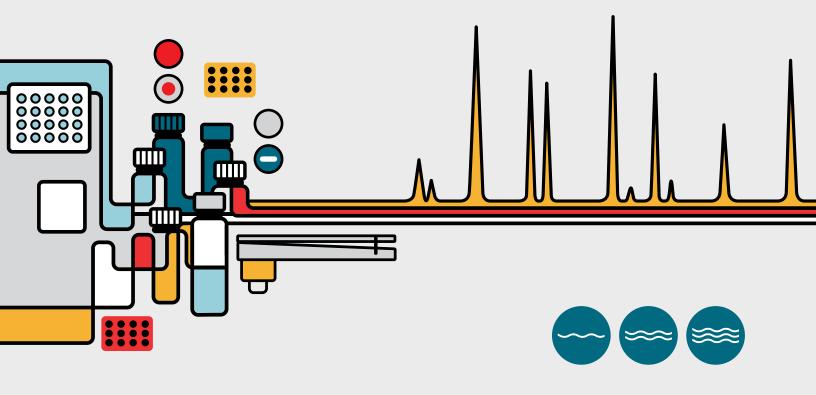


Vials and caps

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

All these products have been transitioned and 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 our our glass vials, making it easier for analysts to select the right products.

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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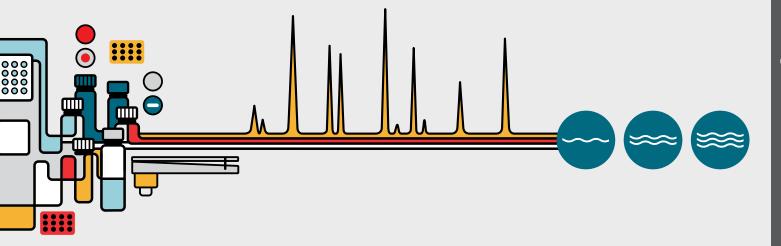
# Why choose Thermo Scientific SureSTART collection?

Five main benef	iits 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

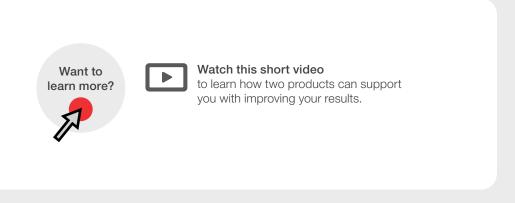


We are committed to providing a broad selection of solutions for all your chromatography and sample storage requirements.

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	Description
	rmo Scientific™ SureSTART™ formance level 1products	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.
$\sim \sim$	rmo Scientific™ SureSTART™ formance level 2 products	MS	Suitable for routine QA/QC applications using MS technology. Compound concentrations are at easily detectable or low levels of detection.
	rmo Scientific™ SureSTART™ formance 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

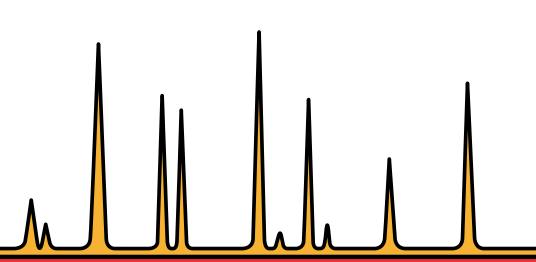


Performance level 2
High throughput:
Robust and reproducible



Performance level 3 High performance: Selective and sensitive





# Selection guide for vials and well plates

# Which SureSTART product/Performance level is right for you?

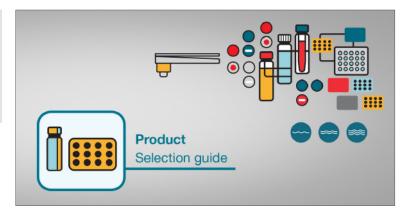
There are several factors to consider when choosing a vial or well plate for your application. This section will help guide you through this process to determine which combination is most suitable for your application requirements

?

#### 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.



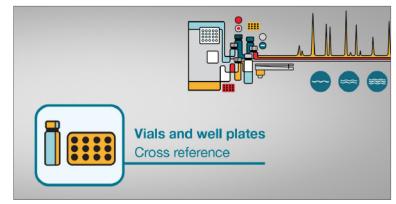


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#### Already purchasing a product?

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





# 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
<b>↓</b>	1	1	1	1	<b>1</b>
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	1
Glass vials  SureSTART  Performance level  1, 2 and 3	*GOLD-grade glass  SureSTART Performance level 3	*Silanized 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

<sup>\*</sup>These products can be found in SureSTART Performance level 3

<sup>\*\*</sup>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	<b>1</b>	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	CTC (PAL)	Thermo Scientific™ TriPlus RSH*	Shimadzu	Thermo Scientific™ Vanquish™**	Waters ACQUITY
1	1	1	1	1	1
Microtitre plate Mid well plate Deep well plate					Mid well plate

<sup>\*</sup>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

<sup>\*\*</sup>Barcoded plates for complete orientation

# Certified integrity and consistency

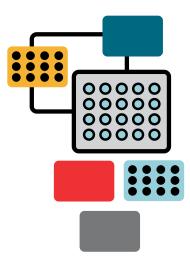


With over 40 years of experience supplying vial and well plates, Thermo Scientific SureSTART certified products are supplied to meet 'critical to quality' specifications, consistently. SureSTART products are produced in compliance with ISO 9001 requirements.

In addition, SureSTART certified products include:

- Glass vials made from First Hydrolytic Type 1 A borosilicate glass, which conforms to U.S Food and Drug Administration (FDA), USP and EU Pharmacopeia standards
- Chemically and thermally resistant well plates are made of the highest quality materials.
- Our autosampler WebSeal wellplates 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 Advanced Vial Closure System (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) and specification certified convenience kits.

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	- 0 mm scrow cans		
2 mL glass screw vials			
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	_		
Specification certified kits	_		
Storage	_		

#### 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<sup>™</sup> 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

#### Description

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

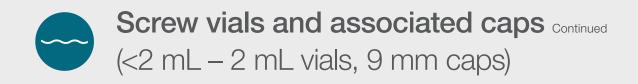
For use with 9 mm screw caps, or 9 mm AVCS screw caps







Vial color and material	Clear plastic	Clear plastic
Total volume	0.4 mL	1.5 mL
Usable volume	0.3 mL	1 mL
Residual volume	4 μL	170 µL
Ordering information	Cat. no.	Cat. no.
100/pack	6ESV9-04PP	6ESV9-1PP
10 x 100/pack	6ESV9-04PPT	6ESV9-1PPT
50 x 100/pack	6ESV9-04PPF	6ESV9-1PPF



## 2 mL glass screw vials

Performance level 1 for everyday analysis

#### Description

- Short thread screw
- 12 mm × 32 mm (diameter × 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 r	mL			
Usable volume	1.5 mL				
Residual volume	170 µL				
Ordering information	Cat. no.	Cat. no.			
100/pack	<u>CHSV9-10P</u>	<u>CHSV9-20P</u>			
10 x 100/pack	CHSV9-10PT	CHSV9-20PT			
50 x 100/pack	CHSV9-10PF	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

#### Description

- Short thread screw
- 9 mm

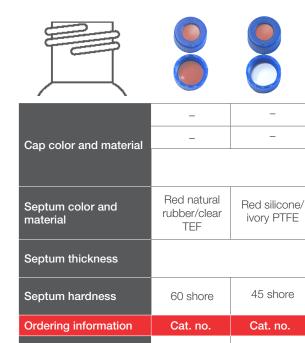
100/pack

10 x 100/pack

50 x 100/pack

Specification certified

For use with <2 mL and 2 mL screw vials



CHSC9-10

CHSC9-10T

CHSC9-10F

Bonded

Pre-slit septa

White silicone/

white PTFE

45 shore

Cat. no.

CHSC9-35UBS

CHSC9-35UBT CHSC9-35UBST

CHSC9-35UBF CHSC9-35UBST

Bonded

Pre-slit septa

White silicone/

red PTFE

45 shore

Cat. no.

CHSC9-30UBS

Bonded

White silicone/

white PTFE

45 shore

Cat. no.

CHSC9-35UB

Pre-slit septa

Blue polypropylene

White silicone/

blue PTFE

1 mm

55 shore

Cat. no.

CHSC9-40

CHSC9-40T

CHSC9-40F

White silicone/

red PTFE

55 shore

Cat. no.

CHSC9-30

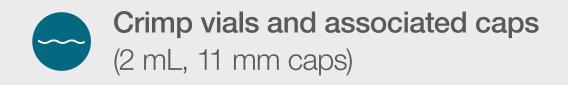
CHSC9-30T

CHSC9-30F

CHSC9-20

CHSC9-20T

CHSC9-20F





## 2 mL glass crimp vials

Performance level 1 for everyday analysis

#### Description

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

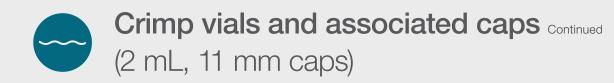
For use with 11 mm crimp caps







ſ	1				
Vial color and ma	aterial	Clear glass	Amber glass		
Total volume		2 mL			
Usable volume		1.5 mL			
Residual volume		170 μL			
Ordering informa	ition	Cat. no.	Cat. no.		
100/pack	<b>€</b>	CHCV11-10P	CHCV11-20P		
40 400/ 1-	<b>(</b> ⊗ <sub>10</sub>	CHCV11-10PT CHCV11-20PT			
10 x 100/pack	10	<u>0110411-101 1</u>	<u>0110411-201-1</u>		



### 11 mm crimp caps

Performance level 1 for everyday analysis

#### Description

- 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







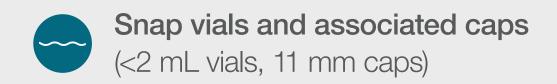
,			
Cap color and material	Silver aluminium		
Septum color and material	Natural rubber/clear TEF	White silicone/red PTFE	
Septum thickness	1 mm	1.3 mm	
Septum hardness	60 shore	45 shore	
Ordering information	Cat. no.	Cat. no.	
100/pack	CHCC11-10	CHCC11-30	
10 x 100/pack (8)	CHCC11-10T	CHCC11-30T	
50 x 100/pack \$\infty\$50	CHCC11-10F	CHCC11-30F	

#### Learn more about:

Manual and electronic crimpers and decrimpers







## <2 mL polypropylene snap microvials

Performance level 1 for everyday analysis

### Description

- Snap (11 mm)
- 12 mm × 32 mm (diameter × 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
Ordering information	Cat. no.	Cat. no.	Cat. no.
100/pack	6ERV11-03PPC	6ERV11-08PPC	6ERV11-08PPFB
10 x 100/pack	6ERV11-03PPCT	6ERV11-08PPCT	6ERV11-08PPFBT
	<u> </u>		
50 x 100/pack \$\infty\$ 50	6ERV11-03PPCF	6ERV11-08PPCF	6ERV11-08PPFBF



### 11 mm snap caps

Performance level 1 for everyday analysis

#### Description

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

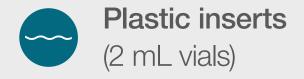
For use with <2 mL and 2 mL snap vials







Cap color and material	Blue polyethylene snap cap with integral PE membrane	Clear polyethylene snap cap with integral PE membrane	
	Membrane thic	kness 0.5 mm	
Septum color and material			
Septum thickness	This cap comes with no septa	This cap comes with no septa	
Septum hardness			
Ordering information	Cat. no.	Cat. no.	
100/pack	6ERC11PE	6ERC11PEC	



Need more information about which insert is most suitable for you?



Watch this short video

### Plastic inserts for 2 mL vials

Performance level 1 for everyday analysis

#### Description

- 6 mm × 31 mm (diameter × height) (size × height) conical with polyspring base
- No marking spot but filling lines
- Specification certified

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



	1.09
Insert color and material	Clear polypropylene with clear polyprolyene polyspring
Total volume	0.30 mL
Usable volume	0.25 mL
Residual volume	4 μL
Ordering information	Cat. no.
100/pack	6EME03CPPSP
10 x 100/pack	6EME03CPPSPT
50 x 100/pack	6EME03CPPSPF

#### Learn more about:



2 mL glass screw vials



2 mL glass crimp vials



2 mL glass snap vials





# Headspace vials and associated caps

(20 mL vials, 20 mm caps)

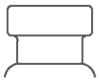
### 20 mL glass crimp headspace vials

Performance level 1 for everyday analysis

#### Description

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

For use with 20 mm crimp caps





, ,	
Vial color and material	Clear glass
Total volume	20 mL
Usable volume	18 mL
Residual volume	0.8 mL
Ordering information	Cat. no.
100/pack	<u>CHCV20-14</u>
10 x 100/pack	CHCV20-14T



# Headspace vials and associated caps continued

(20 mL vials, 20 mm caps)

### 20 mm crimp caps

Performance level 1 for everyday analysis

#### Description

- 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













/					
Cap color and material	Silver aluminium	Silver aluminium	Silver aluminium	Gold magnetic steel	Gold magnetic steel
Contum color and	Molded	_	_	Molded	_
Septum color and material	Grey butyl/ grey PTFE	Blue silicone/ white PTFE	_	Grey butyl/ grey PTFE	Blue transparent silicone/clear PTFE
Septum thickness	3 mm	3 mm	_	3 mm	3 mm
Septum hardness	50 shore	45 shore	_	50 shore	45 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	CHCC20-1	CHCC20-2	_	CHCC20-1M	CHCC20-2M
10 x 100/pack	CHCC20-1T	CHCC20-2T	6ECC20OT	CHCC20-1MT	CHCC20-2MT
50 x 100/pack	CHCC20-1F	CHCC20-2F	_	CHCC20-1MF	CHCC20-2MF

#### Learn more about:

Manual and electronic crimpers and decrimpers







# 20 mm stopper

Performance level 1 for everyday analysis

#### Description

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
Ordering information	Cat. no.
100/pack	CHBS-20
10 x 100/pack	CHBS-20T
50 x 100/pack	CHBS-20F

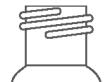


## Specification certified shell, screw vial and cap kits

Performance level 1 for everyday analysis

#### Description

- Screw
- 9 mm short thread
- Specification certified









Vial color and material	Clear propylene	Clear propylene	Clear propylene
Vial total volume	0.4 mL	0.4 mL	1.25 mL
Cap color and material	White silicone	Blue propylene	Lamela plug
Septum color and material	Blue PTFE	White silicone/blue PTFE	_
Ordering information	Cat. no.	Cat. no.	Cat. no.
100/pack	<u>6EKPP97</u>	6EKPP87	-
200/pack	-	_	6EKSHV8



### Vial rack

## Performance level 1 for everyday analysis

#### Description

- For 12 × 32 mm vials
- 50 cavities (5 x 10)
- No lid, reusable 20 x 10.5 x 2.2 cm

Use with 2 mm vials



Product description	Vial rack
Color and material	Blue polypropylene
Ordering information	Cat. no.
1/pack	6EVR1232B

# Performance level 2: High-throughput analysis

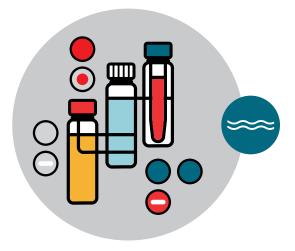
### When robustness and reproducibility are key

# 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 Performance 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 U.S. Environmental Protection Agency (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

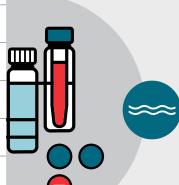
#### Lot traceable

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

# Performance level 2:

# High-throughput analysis

Vials	Caps
0.7 mL glass crimp vials	8 mm crimp caps
1.7 mL high-recovery glass screw vials	0
2 mL glass screw vials	9 mm screw caps
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
8 mL glass screw vials	15 mm screw caps
10 mL glass screw headspace vials	18 mm screw caps
10 mL glass crimp headspace vials	20 mm crimp caps
12 mL glass screw vials	15 mm screw caps
20 mL glass screw vials	18 mm screw caps
20 mL glass crimp headspace vials	
20 mm stoppers and septa	20 mm crimp caps
40 mL glass screw vials	24 mm screw caps
Kits	
Specification certified	d
EPA	





# Screw vials and associated caps

(<2 mL - 2 mL vials, 8 mm caps)

## 0.7 mL glass crimp microvials for <2 mL samples

Performance level 2 for high-throughput applications

#### Description

- Crimp
- Conical base
- Specification certified

For use with 8 mm crimp caps





/	
Vial color and materi	Amber glass
Total volume	0.7 mL
Usable volume	1.0 mL
Residual volume	-
Ordering information	Cat. no.
100/pack	6ACV8-07C2



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

Performance level 2 for high-throughput applications

#### Description

- Short thread screw
- 12 mm × 32 mm (diameter × height) inner V-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
Total volume	1.7 mL
Usable volume	1.3 mL
Residual volume	4 μL
Ordering information	Cat. no.
100/pack	6ASV9-V1
10 x 100/pack	6ASV9-V1T
50 x 100/pack	6ASV9-V1F

## 2 mL glass screw vials

Performance level 2 for high-throughput applications

#### Description

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

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









r	'				
Vial color and r	naterial	Clear glass	Amber glass	Amber glass, silanized	
Total volume		2.0 mL			
Usable volume		1.5 mL			
Residual volum	ne	170 μL			
Ordering inforn	nation	Cat. no.	Cat. no.	Cat. no.	
100/pack	<b>€</b> ®	6ASV9-1P	6ASV9-2P	6ASV9-S2P	
10 x 100/pack	<b>⊗</b> 10	6ASV9-1PT	6ASV9-2PT	-	
50 x 100/pack	<b>⊗</b> 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 AVCS screw caps

Performance level 2 for high-throughput applications

#### Description

- Short thread screw
- 9 mm
- Specification certified
- AVCS screw top technology

For use with <2 mL and 2 mL screw vials







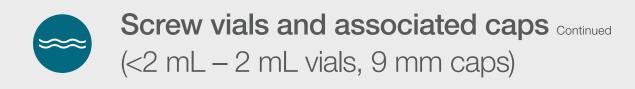








Q	-	Bonded	Bonded	_	_	-
Cap components	_	Pre-slit	-	-	-	-
Cap color and material	Blue polypropylene Red polypropylene				propylene	
Septum color and material	White silicone/ red PTFE	White silicone/ beige PTFE	White silicone/ beige PTFE	Red rubber/ ivory PTFE	White silicone/ red PTFE	Red rubber/ ivory PTFE (RedRubber)
Septum thickness	1 mm					
Septum hardness	45 shore	45 shore	45 shore	45 shore	45 shore	45 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6ASC9ST1	6ASC9STBS1	6ASC9STB1	6ASC9RT1	6ASC9ST1R	6ASC9RT1R
10 x 100/pack (8)	6ASC9ST1T	6ASC9STBS1T	6ASC9STB1T	6ASC9RT1T	6ASC9ST1RT	6ASC9RT1RT
50 x 100/pack \$\infty \begin{array}{c} \times \\ \\ \times \\ \tim	6ASC9ST1F	6ASC9STBS1F	6ASC9STB1F	6ASC9RT1F	6ASC9ST1RF	6ASC9RT1RF



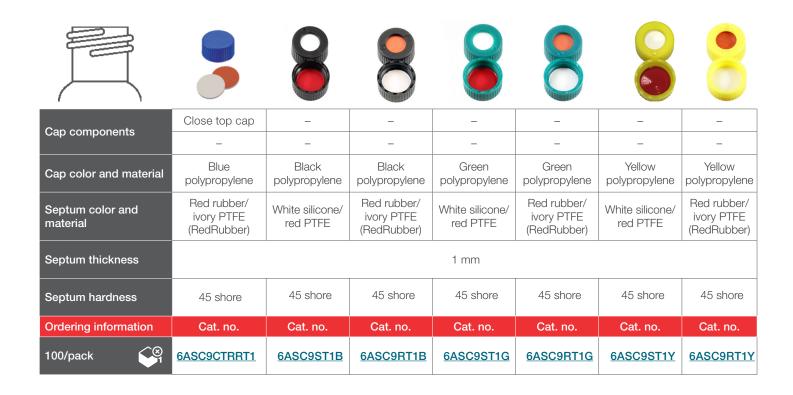
### 9 mm AVCS screw caps

Performance level 2 for high-throughput applications

#### Description

- Short thread screw
- 9 mm
- Specification certified
- AVCS screw top technology

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

#### Description

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

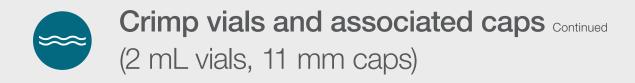
For use with 11 mm crimp caps, or 11 mm snap caps







Vial color and material	Clear glass	Amber glass			
Total volume	2 mL				
Usable volume	1.7 mL				
Residual volume	170 μL				
Ordering information	Cat. no.	Cat. no.			
100/pack	6ACV11-1P	6ACV11-2P			
10 x 100/pack	6ACV11-1PT	<u>6ACV11-2PT</u>			
50 x 100/pack	6ACV11-1PF	6ACV11-2PF			



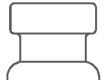
### 11 mm crimp caps

Performance level 2 for high-throughput applications

#### Description

- 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







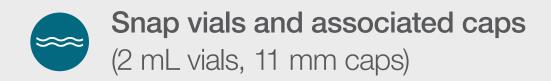
Cap color and material	Silver aluminium closure				
Septum color and material	White silicone/red PTFE	Red rubber/clear PTFE			
Septum thickness	1 mm				
Septum hardness	45 shore	60 shore			
Ordering information	Cat. no.	Cat. no.			
100/pack	6ACC11ST1	6ACC11RT1			
10 x 100/pack	6ACC11ST1T	6ACC11RT1T			
50 x 100/pack	6ACC11ST1F	6ACC11RT1F			

#### Learn more about:

Manual and electronic crimpers and decrimpers







## 2 mL glass snap vials

Performance level 2 for high-throughput applications

#### Description

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

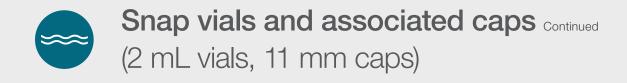
For use with 11 mm snap caps or 11 mm crimp caps



#### Need a smaller volume?

Why not use with our polyspring glass inserts





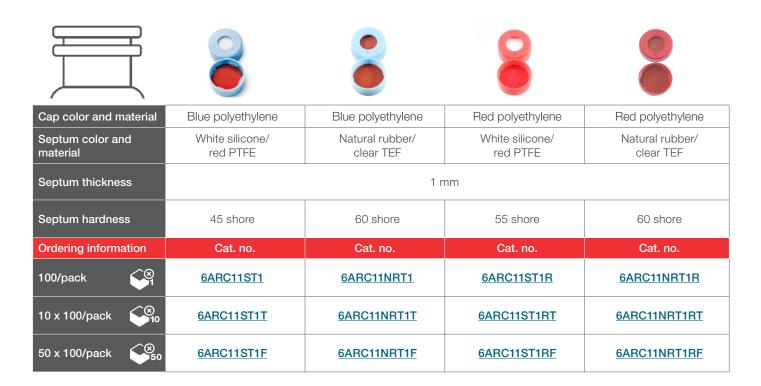
### 11 mm snap caps

Performance level 2 for high-throughput applications

#### Description

- Snap closure (11 mm)
- Specification certified

For use with 11 mm glass or plastic snap vials







## Snap vials and associated caps Continued

(2 mL vials, 11 mm caps)

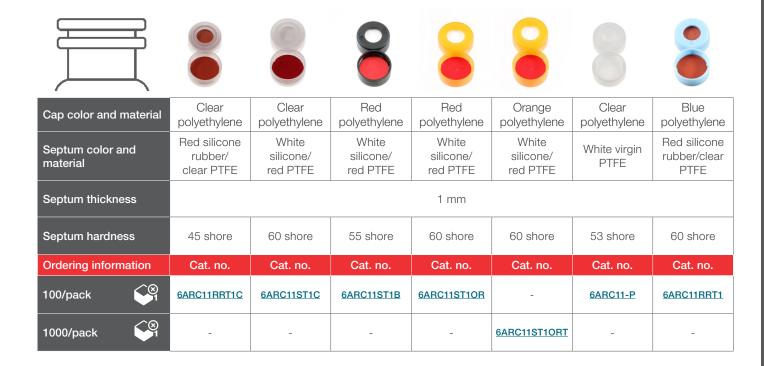
### 11 mm snap caps

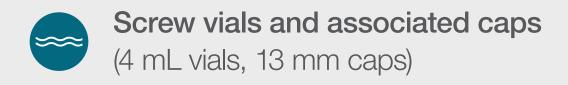
Performance level 2 for high-throughput applications

#### Description

- Snap closure (11 mm)
- Specification certified

For use with 11 mm glass or plastic snap vials





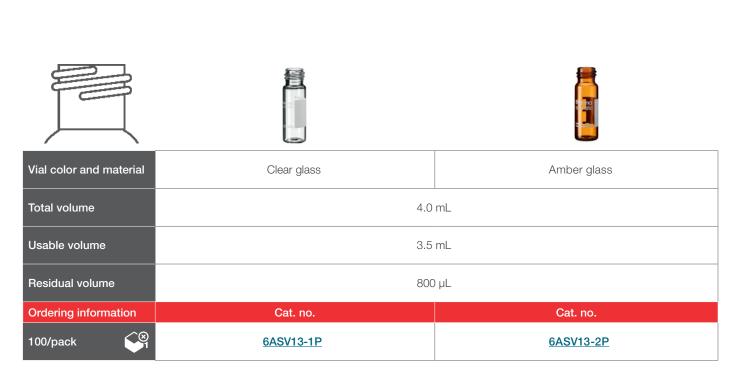
## 4 mL glass screw vials

Performance level 2 for high-throughput applications

#### Description

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

For use with 13 mm screw caps







## Screw vials and associated caps Continued

(4 mL vials, 13 mm caps)

## 13 mm screw caps

Performance level 2 for high-throughput applications

#### Description

- 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)









,			
	-	Pre-slit septa	-
Cap color and material	Black polypropylene	White polypropylene	White polyurethane
Septum color and material	White silicone/red PTFE	White silicone/blue PTFE	White UR 13-425 PE foam/ PTFE close top
Septum thickness	1.5 mm		
Septum hardness	55 shore	45 shore	75 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.
100/pack	6ASC13ST15	6PSC13STS15W	6ASC13-CTP



# Headspace screw vials and associated caps (10 mL vials, 18 mm caps)

## 10 mL glass screw headspace vials

Performance level 2 for high-throughput applications

#### Description

- Screw
- 22.5 mm × 46 mm (diameter × 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	10 mL	10 mL
Usable volume	8 mL	8 mL
Residual volume	0.8 mL	0.8 mL
Ordering information	Cat. no.	Cat. no.
100/pack	<u>6ASV10-1</u>	6ASV10-2
10 x 100/pack	6ASV10-1T	6ASV10-2T
50 x 100/pack	6ASV10-1F	6ASV10-2F





## Headspace screw vials and associated caps continued

(20 mL vials, 18 mm caps)

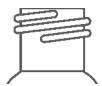
## 20 mL glass screw headspace vials

Performance level 2 for high-throughput applications

#### Description

- Screw
- 22.5 mm × 75.5 mm (diameter × 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
Ordering information	Cat. no.	Cat. no.
100/pack	6ASV20-1	6ASV20-2
10 x 100/pack	6ASV20-1T	6ASV20-2T
50 x 100/pack	6ASV20-1F	6ASV20-2F

#### Looking for caps?

Our 18 mm precision screw caps which are a perfect fit for these vials





## 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

#### Description

- Crimp
- 22.50 mm × 46 mm (diameter × 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	
Total volume	10 ו	mL	
Usable volume	8 mL		
Residual volume	0.8 mL		
Ordering information	Cat. no.	Cat. no.	
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

#### Description

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

For use with 20 mm crimp caps









[ ]			
Vial color and material	Clear glass	Clear glass	Amber glass
Vial diameter and length	22.65 × 75.5	23 × 75.5	23 × 75.5
Total volume		20 mL	
Usable volume	18 mL		
Residual volume		0.8 mL	
Ordering information	Cat. no.	Cat. no.	Cat. no.
100/pack	6ACV20-1R	6ACV20-1PE	6ACV20-2PE
10 x 100/pack	6ACV20-1RT	6ACV20-1PET	6ACV20-2PET
50 x 100/pack	6ACV20-1RF	6ACV20-1PEF	6ACV20-2PEF

6ACV20-1PE and 6ACV20-2PE fit PerkinElmer 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

#### Description

- 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













1 1					
	-	-	_	Magnetic	Magnetic
Cap components	-	-	Pressure release	-	Suitable for high temperature
	-	_	_	Soft septa	_
Cap color and material	Silver aluminium	Silver aluminium	Silver aluminium	Gold steel	Silver steel
Septum color and material	Black butyl/ grey PTFE/ molded Pharmafix	White silicone/ beige PTFE	White silicone/ beige PTFE	Blue silicone/ clear PTFE	Red silicone/ natural PTFE
Septum thickness	3.0 mm	3.2 mm	3.2 mm	3.0 mm	3.0 mm
Septum hardness	50 shore	45 shore	45 shore	40 shore	55 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6ACC20-PFT	6ACC20-ST1	6APRCC20-ST1	6AMCC20-ST3	6AMCC20-STH
10 x 100/pack	6ACC20-PFTT	6ACC20-ST1T	6APRCC20-ST1T	6AMCC20-ST3T	6AMCC20-STHT
50 x 100/pack	6ACC20-PFTF	6ACC20-ST1F	6APRCC20-ST1F	6AMCC20-ST3F	6AMCC20-STHF

#### Learn more about:

Manual and electronic crimpers and decrimpers







# Headspace screw vials and associated caps (20 mL, 18 mm closure)

## Screw vial and cap kits

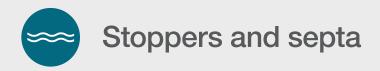
Performance level 2 for high-throughput applications

- Screw thread
- Specification certified
- 22.5  $\times$  75.5 (diameter  $\times$  height) headspace round bottom base





Vial color ar	nd material	Clear glass
Vial total vo	lume	20 mL
Cap color a	nd material	Silver stainless steel open top screw cap, magnetic
Septum colo material	or and	Blue silicone/clear PFTE, 45 shore hardness
Ordering inf	formation	Cat. no.
100/pack	Ç <u>⊗</u>	6AKHSVST201



## 20 mm stoppers and septa

## Performance level 2 for high-throughput applications

#### Description

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)	Septum (20 mm)
Color and material	Grey bromobutyl	White silicone/beige PTFE	Black butyl/ grey PTFE molded pharmafix
Septum thickness	3.0 mm	3.2 mm	3.0 mm
Septum hardness	45 shore	45 shore	50 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.
100/pack	6A20BS	6A20ST1	6A20CBT3
10 x 100/pack	6A20BST	6A20BST	_
50 x 100/pack	6A20BSF	6A20BSF	_



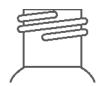
### Performance level 2 for high-throughput applications

#### Description

- Screw (15-425)
- 17 × 60 mm (diameter × height) flat base
- Specification certified Level 100 EPA vials

#### For use with 15 mm screw caps

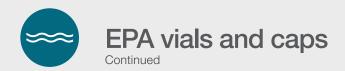
These are processed and packages under a strict registered ISO Quality Management System. The products are not certified to EPA standards or pre-cleaned. Every case of product is labeled with its production number and is custody sealed to ensure reliable chain-of-custody.







Vial color and material	Clear glass	Amber glass
Total volume	8 mL	8 mL
Usable volume	6 mL	6 mL
Residual volume	0.8 mL	0.8 mL
Ordering information	Cat. no.	Cat. no.
200/pack	6ASV8EPA-1	6ASV8EPA-2



### Performance level 2 for high-throughput applications

#### Description

- Screw thread (15-425)
- Specification certified Level 100 EPA vials

#### For use with 15 mm screw caps

These are processed and packages 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.







, ,		
Vial color and material	Clear glass	Amber glass
Total volume	12 mL	12 mL
Usable volume	11 mL	11 mL
Residual volume	0.8 mL	0.8 mL
Ordering information	Cat. no.	Cat. no.
200/pack	6ASV12EPA-1	6ASV12EPA-2





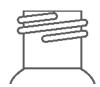
Performance level 2 for high-throughput applications

#### Description

- Screw thread (18-400)
- Specification certified Level 100 EPA certified

#### For use with 18 mm screw caps

These are processed and packages 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.







Vial color and material	Clear glass	Amber glass
Total volume	16 mL	16 mL
Usable volume	15 mL	15 mL
Residual volume	0.8 mL	0.8 mL
Ordering information	Cat. no.	Cat. no.
200/pack	6ASV16EPA-1	6ASV16EPA-2



### Performance level 2 for high-throughput applications

#### Description

- Screw thread (20-400)
- 23 × 85 mm (diameter × height ) flat base
- Specification certified Level 100 EPA vials

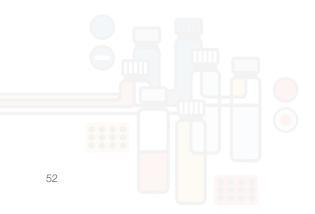
#### For use with 20 mm screw caps

These are processed and packages 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.





•	
Vial color and material	Clear glass
Total volume	20 mL
Usable volume	18 mL
Residual volume	0.8 mL
Ordering information	Cat. no.
100/pack	6ASV20EPA-1





### Performance level 2 for high-throughput applications

#### Description

- Screw thread 24 mm (24-400)
- Specification certified Level 100 EPA vials

#### For use with 24 mm crimp caps

These are processed and packages 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.







Vial color and material	Clear glass Amber glass					
Total volume	40	mL				
Usable volume	38 mL					
Residual volume	0.8 mL					
Ordering information	Cat. no.	Cat. no.				
100/pack	6ASV40EPA-1	6ASV40EPA-2				



## Performance level 2 for high-throughput applications

#### Description

- Short thread screw closure 15 mm (15-425)
- Specification certified

For use with 8 and 12 mL screw vials (and other vials with screw 15 mm dimensions)





/	
Cap color and material	White polypropylene, close top
Septum color and material	PE foam/PTFE
Septum thickness	-
Septum hardness	75 shore
Ordering information	Cat. no.
100/pack	6ASC15-CTP





## Performance level 2 for high-throughput applications

#### Description

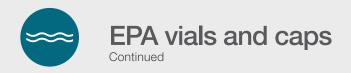
- Screw closure 18 mm (18-400)
- Specificaiton certified

For use with 20 mL EPA screw vials (and other vials with screw 18 mm dimensions) except for 20 mL headspace vials





Cap color and	material	White polypropylene, close top
Septum color a	and	PE foam/PTFE
Septum thickn	iess	-
Septum hardn	ess	75 shore
Ordering inform	mation	Cat. no.
100/pack	Ç <u>⊗</u>	6ASC18-CTP



## Performance level 2 for high-throughput applications

#### Description

- Screw closure 24 mm (24-400)
- Specification certified

For use with 40 mL screw vials (and other vials with screw 24 mm dimensions)





,	
Cap color and material	White polypropylene, close top
Septum color and material	PE foam/PTFE
Septum thickness	-
Septum hardness	75 shore
Ordering information	Cat. no.
100/pack	6ASC24-CTP





## 22 mm septa

## Performance level 2 for high-throughput applications

#### Description

Specification certified

For use with screw vials (with 24-400 screw thread closure) with a diameter neck size of 22 mm



Product description	Septum (22 mm)
Color and material	Clear silicone/beige PTFE
Septum thickness	2.6 mm
Septum hardness	50 shore
Ordering information	Cat. no.
100/pack	<u>6A24ST26</u>



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

## Specification certified screw vial and cap kits

Performance level 2 for high-throughput applications

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













/	1							
Key attributes				AVCS				
Vial color and material		Clear glass	Amber glass	Clear glass	Clear glass	Amber glass		
Vial total volu	me		2 mL					
Cap color and material	l l		Blue polypropylene					
Septum color material	and	Red silicone/ ivory PTFE	Red silicone/ ivory PTFE	Red PTFE/white silicone/red PTFE	White silicone/ red PTFE	White silicone/ red PTFE		
Ordering inform	mation	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.		
100/pack	<b>€</b> 8	<u>6AK80W</u>	6AK82W	6AK86W	<u>6AK92W</u>	<u>6AK94W</u>		





# 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

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

















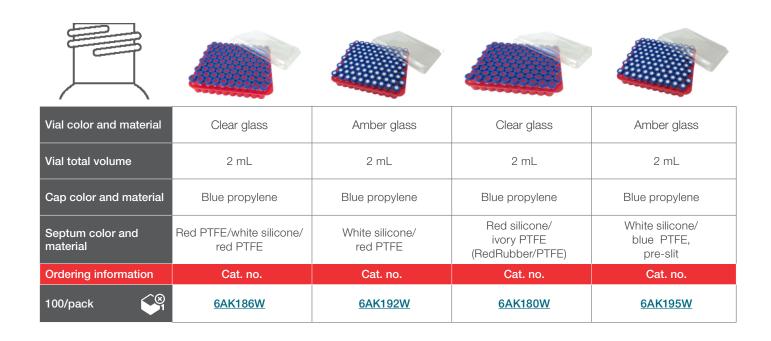
/							
Key attributes	SureStop/ AVCS	SureStop/ AVCS	SureStop/ AVCS	AVCS	AVCS	Bonded	Bonded
	_	-	Preslit septa	Soft septa	Preslit septa	Preslit septa	-
Vial color and material	Clear glass	Amber glass	Clear glass	Clear glass	Clear glass	Clear glass	Clear glass
Vial total volume	2 mL						
Cap color and material	Blue polypropylene	Blue polypropylene	Blue polypropylene	Blue polypropylene	Blue polypropylene	Grey polypropylene	Black polypropylene
Septum thickness	White silicone/ red PTFE	White silicone/ red PTFE	White silicone/ blue PTFE	Blue silicone/ clear PTFE	White silicone/ blue PTFE	White silicone/ red PTFE	White silicone/ red PTFE
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6AK592W	6AK594W	6AK595W	6AK599W	<u>6AK95W</u>	<u>6AK93BW</u>	<u>6AK78BW</u>



## Specification certified screw vial and cap kits Continued

Performance level 2 for high-throughput applications

- Assembled 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

#### Description

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

These are processed and packages 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.















,						
Vial color and material	Clear glass	Amber glass	Clear glass	Amber glass	Clear glass	Amber glass
Vial total volume	4 mL (	13 mm)	8 mL (	(15 mm)	12 m	L (15 mm)
Cap color and material		White screw cap (PP) (13 mm) close top  White screw cap (PP) (15 mm) close top				
Septum color and material		PE foam/white PTFE closed top				
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6AK4CCT	6AK4ACT	_	_	_	-
200/pack	_	_	6AK8CCT	6AK8ACT	6AK12CCT	6AK12ACT



# 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

#### Description

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

These are processed and packages 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.







# 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

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











, ,						
Vial color and mater	ial Clear ç	Clear glass Amber glass Clear glass		Amber glass		
Vial total volume		40 mL (24 mm)				
Cap color and mate	rial White sc	crew cap (PP)	(24 mm), assembled	White screw c	ap (PP) (24 mm)	
Septum color and material	Clear	r silicone/whi	te PTFE open top	PE foam/white	PTFE closed top	
Ordering information	n Cat.	Cat. no.		Cat. no.	Cat. no.	
100/pack	6AK40C	OTAS	6AK40AOTAS	6AK40CCT	6AK40ACT	





Key attributes	Scintillation
Vial color and material	Clear screw
Vial total volume	20 mL
Cap color and material	White closed top screw cap
Septum color and material	Silver polypropylene foil
Ordering information	Cat. no.
5 x 100/pack	6AK20SCIN

# 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 leachables; 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, while maintaining 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 silanized 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

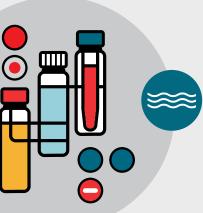
- All Thermo Scientific SureSTART vials are dimensionally verified
- Inspected by automated optical and gauge inspection to ensure critical dimensions and tolerances
- Meet all relevant requirements of US, EU, JPN Pharmacopeia.
- Uniform and defect-free

#### 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 vials					
1.4 mL total recovery glass screw vials					
1.5 mL total recovery glass screw vials	9 mm screw caps				
1.7 mL high recovery glass screw vials	9 mm screw caps  11 mm crimp caps  11 mm snap caps  20 mm crimp caps  and decrimpers  are and decrimpers  Cits  c certified  OCC  and MSCERT+				
2 mL glass screw vials					
2 mL GOLD-grade glass screw vials					
Glass crimp microvials					
2 mL GOLD-grade glass crimp vial	11 mm crimp caps				
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 and	decrimpers				
Electronic crimpers					
Kits					
TOC					
MSCERT and MSCERT+					
Assemi	bled				





# 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

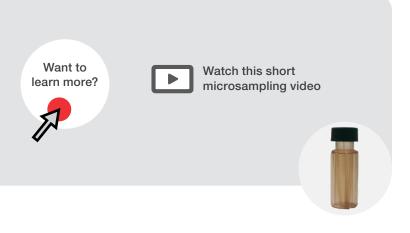
#### Description

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

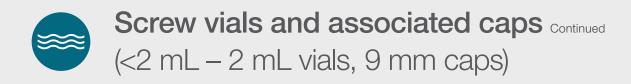




1	
Vial color and	TPX with fixed insert
material	Clear glass, amber transparent plastic
Total volume	200 μL
Usable volume	150 μL
Residual volume	1 μL
Ordering information	Cat. no.
100/pack	<u>60180-1655</u>







### Glass screw microvials

Performance level 3 for high performance analysis

#### Description

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







'				
Vial color and material	Clear glass	Amber glass		
Total volume	300 μL			
Usable volume	250 μL			
Residual volume	2 μL			
Ordering information	Cat. no.			
100/pack	6PSV9-03FIVP	6PSV9-03FIVAP		
10 x 100/pack	6PSV9-03FIVPT	6PSV9-03FIVAPT		







## 1.4 mL and 1.5 mL total recovery glass screw microvial

Performance level 3 for high performance analysis

#### Description

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







Vial color and material	Clear glass	Clear glass	
Total volume	1.5 mL	1.4 mL	
Usable volume	1.1 mL	1.0 mL	
Residual volume 1 µL		4 μL	
Ordering information	Cat. no.	Cat. no.	
Ordering information  100/pack	Cat. no.  6PSV9-TR1	Cat. no. 6PSV9-CHV1	
-			





## Screw vials and associated caps Continued

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

## 1.7 mL high recovery glass screw microvial

Performance level 3 for high performance analysis

#### Description

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





r t	
Vial color and material	Clear glass
Total volume	1.7 mL
Usable volume	1.5 mL
Residual volume	4 μL
Ordering information	Cat. no.
100/pack	6PSV9-V1
10 x 100/pack	6PSV9-V1T
50 x 100/pack \$\infty\$ 50	6PSV9-V1F







## 2 mL Gold-grade glass screw vials

Performance level 3 for high performance analysis

#### Description

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





, ,	
Vial color and material	SureStop, GOLD-grade glass
	Clear glass
Total volume	2 mL
Ordering information	Cat. no.
100/pack	6PSV9-1PG
10 x 100/pack	6PSV9-1PGT
50 x 100/pack	6PSV9-1PGF





## Screw vials and associated caps Continued

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

## 2 mL glass screw vials

Performance level 3 for high performance analysis

#### Description

- 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	_	Silianised	SureStop	SureStop		
material	Clear glass	Clear glass	Clear glass Clear glass			
Total volume	2 mL					
Usable volume	1.5 mL					
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.		
100/pack	6PSV9-1P	6PSV9-S1P	6PSV9-1PSS	6PSV9-2PSS		
10 x 100/pack	<u>6PSV9-1PT</u> − <u>6PSV9-1PSST</u>		6PSV9-1PSST	6PSV9-2PSST		
50 x 100/pack	6PSV9-1PF	_	6PSV9-1PSSF	6PSV9-2PSSF		

#### Need a smaller volume?

Why not use with our polyspring glass inserts



Performance level 3 for high-throughput applications

#### Description

- Short thread screw
- Specification certified

For use with <2 mL - 2 mL screw vials









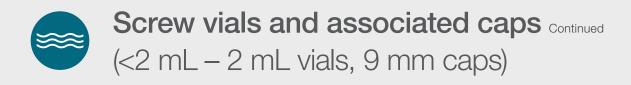






	AVCS cap					
Cap components	_	Pre-slit septa	_	Pre-slit septa	_	_
	_	_	_	Soft septa	Soft septa	
Cap color and material	Blue polypropylene	Blue polypropylene	Blue polypropylene	Blue polypropylene	Blue polypropylene	Red polypropylene
Septum color and material	Red PTFE/ white silicone/ red PTFE	White silicone/ blue PTFE	White silicone/ red PTFE	Blue silicone/ clear PTFE	Blue silicone/ clear PTFE	Red PTFE/ white silicone/ red PTFE
Septum hardness	45 shore	54 shore	54 shore	30 shore	30 shore	45 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PSC9TST	6PSC9STS1	6PSC9ST1	6PSC9ST101X	6PSC9ST101	6PSC9TSTR
10 x 100/pack €810	6PSC9TSTT	6PSC9STS1T	6PSC9ST1T	_	_	6PSC9TSTRT
50 x 100/pack	6PSC9TSTF	6PSC9STS1F	6PSC9ST1F	_	_	6PSC9TSTRF





#### 9 mm screw caps Continued

Performance level 3 for high-throughput applications

#### Description

- Short thread screw
- Specification certified
- Screw AVCS technology

For use with <2 mL - 2 mL screw vials









	AVCS cap	AVCS cap	AVCS cap
Cap components	Pre-slit septa	-	-
	-	-	-
Cap color and material	Yellow polypropylene	Yellow polypropylene	Green polypropylene
Septum color and material	White silicone/ blue PTFE	Red PTFE/ White silicone/ red PTFE	Red PTFE/ White silicone/ red PTFE
Septum thickness		1 mm	
Septum hardness	45 shore	50 shore	50 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.
100/pack €	6PSC9STS1Y	6PSC9TSTY	6PSC9TSTG









## Screw vials and associated caps Continued

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

#### 9 mm screw caps Continued

#### Performance level 3 for high-throughput applications

#### Description

- Short thread screw
- Specification certified

For use with <2 mL - 2 mL screw vials













/					
	AVCS cap	AVCS cap	Bonded cap	Bonded cap	AVCS cap
Cap components	Pre-slit septa	-	Pre-slit septa	-	-
	-	-	-	-	Magnetic cap
Cap color and material	Red polypropylene	Red polypropylene	Grey polypropylene	Black polypropylene	Blue polypropylene with gold magnetic tinplate cover
Septum color and material	White silicone/blue PTFE	White silicone/red PTFE	White silicone/red PTFE	White silicone/red PTFE	White silicone/red PTFE
Septum thickness			1 mm		
Septum hardness			54 shore		
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PSC9STS1R	6PSC9ST1R	6PSC9STBS1	6PSC9STB1	6PMSC9ST1
10 x 100/pack	6PSC9STS1RT	6PSC9ST1RT	6PSC9STBS1T	6PSC9STB1T	-
50 x 100/pack	6PSC9STS1RF	6PSC9ST1RF	6PSC9STBS1F	6PSC9STB1F	-





## Crimp vials and associated caps

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

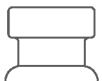
#### Glass crimp microvials

Performance level 3 for high performance analysis

#### Description

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

For use with 8 mm crimp vials











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Vial color and material	Clear glass	Amber glass	Clear glass, round bottom, Gold grade	Clear glass, conical bottom, Gold grade
Total volume	300 μL		300 μL	200 μL
Usable volume	250 μL		250 μL	150 μL
Residual volume	4 µ	4 μL		2 μL
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PCV11-03FIVP	6PCV1103FIVAP	6PCV8-03R1G	6PCV8-02C1G
10 x 100/pack	6PCV11-03FIVPT	6PCV1103FIVAPT	-	-
50 x 100/pack	6PCV11-03FIVPF	6PCV1103FIVAPF	-	-







#### 2 mL GOLD-grade crimp vials

Performance level 3 for high performance analysis

#### Description

- 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





Learn more about our quality materials

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

#### Description

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

For use with 11 mm crimp caps





/	
Vial color and material	Clear glass
Total volume	2 mL
Usable volume	1.5 mL
Ordering information	Cat. no.
100/pack	6PCV11-1P
10 x 100/pack	6PCV11-1PT
50 x 100/pack	6PCV11-1PF

#### Need a smaller volume?

Why not use with our glass inserts





#### 11 mm crimp caps

Performance level 3 for high performance analysis

#### Description

- 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 and 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

#### Description

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

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





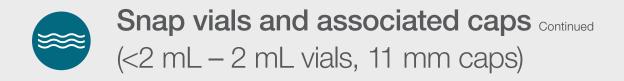


Vial color and material	Clear glass	Amber glass					
Total volume	300	300 μL					
Usable volume	250 μL						
Residual volume	4	uL					
Ordering information	Cat. no.	Cat. no.					
100/pack	6PRV11-03FIVP	6PRV1103FIVAP					
10 x 100/pack	6PRV11-03FIVPT	6PRV1103FIVAPT					
50 x 100/pack \$\infty\$ \$\infty	6PRV11-03FIVPF	6PRV1103FIVAPF					









#### 1.5 mL total recovery glass snap microvials

Performance level 3 for high performance analysis

#### Description

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

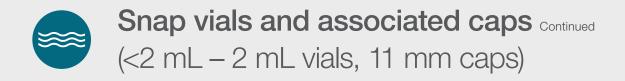
For use with 11 mm snap caps





/	
Vial color and material	Clear glass
Total volume	1.5 mL
Usable volume	1.1 mL
Residual volume	1 μL
Ordering information	Cat. no.
100/pack	6PRV11-TR1
10 x 100/pack	6PRV11-TR1T
50 x 100/pack \$\infty\$50	6PRV11-TR1F





### High recovery glass snap microvials

Performance level 3 for high performance analysis

#### Description

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

For use with 11 mm snap caps







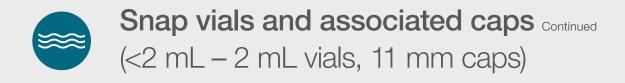


Vial color and material	Silanized glass	Clear glass	Clear glass	
Total volume	1.7 mL	1.7 mL	1.5 mL	
Usable volume	1.5 mL	1.5 mL	1.2 mL	
Residual volume		4 μL		
Ordering information	Cat. no.	Cat. no.	Cat. no.	
Ordering information  100/pack	Cat. no. 6PRV11-S1V	Cat. no. 6PRV11-1V	Cat. no. 6PRV11-15V	
^@	2.00	2 000	2.00	









#### 2 mL glass snap vials

Performance level 3 for high performance analysis

#### Description

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

For use with 11 mm snap caps





f 1	
Vial color and material	Clear glass
Total volume	2 mL
Usable volume	1.5 mL
Ordering information	Cat. no.
100/pack	<u>6PRV11-1P</u>
100/pack \$\int \text{3}{1}\$  10 x 100/pack \$\int \text{3}{10}\$	6PRV11-1PT

#### Need a smaller volume?

Why not use with our glass inserts





## Snap vials and associated caps Continued

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

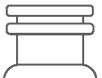
#### 11 mm snap cap

Performance level 3 for high performance analysis

#### Description

- Snap closure (11 mm)
- Specification certified

For use with <2 mL and 2 mL snap vials















/						
Key attributes	Pre-slit	-	-	Star pre-slit	-	-
Cap color and material	Blue polyethylene	Blue polyethylene	Blue polyethylene	Clear polyethylene	Red polyethylene	Red polyethylene
	-	_	Soft	_	_	_
Septum color and material	White silicone/ blue PTFE	White silicone/ red PTFE	Blue silicone/ clear PTFE	White silicone/ red PTFE	Red silicone/ blue PTFE	White silicone/ red PTFE
Septum thickness	1 mm	1 mm	1 mm	1 mm	1.3 mm	1.3 mm
Septum hardness	54 shore	54 shore	45 shore	54 shore	54 shore	54 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PRC11STS1	6PRC11ST1	6PRC11ST101	6PRC11STS1X	6PRC11STS1R	6PRC11ST1R
10 x 100/pack	6PRC11STS1T	PRC11ST1T	6PRC11ST101T	6PRC11STS1XT	6PRC11STS1RT	6PRC11ST1RT
50 x 100/pack	6PRC11STS1F	6PRC11ST1F	6PRC11ST101F	6PRC11STS1XF	6PRC11STS1RF	6PRC11ST1RF







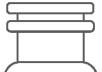
#### 11 mm snap cap continued

Performance level 3 for high performance analysis

#### Description

- Snap closure (11 mm)
- Specification certified

For use with <2 mL and 2 mL snap vials













Key attributes		-	Pre-slit	Pre-slit	Pre-slit
Cap color and material	Red polyethylene	Red polyethylene	Green polyethylene	Yellow polyethylene	Clear polyethylene
Septum color and material	Blue Silicone/ clear PTFE, soft	Red PTFE/ white silicone/ red PTFE	White silicone/ blue PTFE	White silicone/ blue PTFE	White silicone/ blue PTFE
Septum thickness	45 shore	50 shore	45 shore	45 shore	45 shore
Septum hardness	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PRC11ST101R	6PRC11TST1R	6PRC11STS1G	6PRC11STS1Y	6PRC11STS1C
10 x 100/pack	6PRC11ST101RT	-	-	-	-
50 x 100/pack	6PRC11ST101RF	-	_	_	_





Watch this short microsampling video

#### Inserts for 2 mL vials

#### Performance level 3 for high-throughput applications

#### Description

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

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



	GOLD-grade glass	Deactivated/ silanized glass	_	_	_	_	_
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	0.4 mL clear conical glass insert, with pulled point	0.5mL clear flat bottom glass insert	0.5mL clear flat bottom glass insert
Total volume	200 μL	300 µL	300 µL	400 μL	400 µL	500 µL	500 μL
Usable volume	150 μL	250 μL	250 µL	350 μL	350 µL	450 µL	450 μL
Residual volume	2 μL	1 µL	4 μL	4 μL	2 μL	25 µL	25 μL
Height	31 mm	30 mm	30 mm	31 mm	31 mm	31 mm	31 mm
Inner diameter	6 mm	6 mm	6 mm	6 mm	6 mm	6 mm	6 mm
Base style	Conical base	Conical base	Conical base	Conical base	Conical base	Flat bottom	Flat bottom
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	-	6PME03C1SSP	6PME03C1SP	6PME04C1	6PME04CPR1	-	_
10 x 100/pack	6PME02CG	6PME03C1SSPT	6PME03C1SPT	6PME04C1T	-	-	_
50 x 100/pack	_	6PME03C1SSPF	6PME03C1SPF	6PME04C1F	_	6PME05F1*	6PME05FS1

<sup>\*</sup>Pack of 500 only

#### Learn more about



2 mL glass screw vias



2 mL glass crimp vials



2 mL glass snap vials



## 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

#### Description

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

For use with 20 mm crimp caps











1 1								
Vial color and material	Clear glass							
Total volume	6 mL	10 mL	20 mL	20 mL				
Usable volume	5 mL	8 mL	18 mL	18 mL				
Residual volume	0.8 mL	0.8 mL	0.8 mL	0.8 mL				
Dimensions	21.75 mm x 38 mm	22.75 mm x 46 mm	22.75 mm x 75.0 mm	22.75 mm x 75.0 mm				
Rim and base style	Square rim, flat bottom	Beveled rim, flat bottom	Beveled rim, flat bottom	Beveled rim, round bottom				
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.				
100/pack	6PCV6-1F	6PCV10-1F	6PCV20-1F	6PCV20-1R				
10 x 100/pack	6PCV6-1FT	6PCV10-1FT	6PCV20-1FT	6PCV20-1RT				
50 x 100/pack \$\infty\$ 50	6PCV6-1FF	6PCV10-1FF	6PCV20-1FF	6PCV20-1RF				





## Headspace crimp vials and associated caps continued

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

#### 8 mm crimp caps

Performance level 3 for high performance analysis

#### Description

- Crimp closure (8 mm)
- Specification certified

For use with <2 mL crimp vials (with neck size of 8 mm)

Use with 8 mm crimpers and decrimpers





ſ	
Cap color and	-
material	Silver aluminium
Septum color and	Blue silicone/
material	clear PTFE; soft
Septum thickness	1 mm
Septum hardness	30 shore
Ordering information	Cat. no.
100/pack	6PCC8ST101









## Headspace crimp vials and associated caps continued

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

#### 18 mm precision screw caps

Performance level 3 for high performance analysis

#### Description

- Crimp closure
- Specification certified

For use with 10 mL and 20 mL screw top headspace vials







1 1		
Cap color and	Magnetic	Magnetic
material	Silver aluminium	Silver aluminium
Septum color and material	Blue silicone/ clear PTFE; soft	Red silicone/ natural PTFE; high temperautre
Septum thickness	2 mm	3 mm
Septum hardness	45 shore	45 shore
Ordering information	Cat. no.	Cat. no.
100/pack	6PMSC18-ST2	6PMSC18-STH
10 x 100/pack	6PMSC18-ST2T	6PMSC18-STHT
50 x 100/pack \$\infty\$50	PMSC18-ST2F	6PMSC19-STHF



## 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

#### Description

- 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















1 1					
Can calan and	-	Magnetic	Magnetic	Magnetic	Magnetic
Cap color and material	Silver aluminium	Red aluminium/ magnetic tinplate	Silver aluminium/ magnetic tinplate	Blue aluminium/ magnetic tinplate	Red aluminium/ magnetic tinplate
Septum color and material	Blue silicone/ clear PTFE; soft	Blue silicone/ clear PTFE; soft	Red silicone/ natural PTFE; high Temperature	White silicone/ blue PTFE	Grey chlorobutyl/ black PTFE
Septum thickness	3 mm	3 mm	3 mm	3 mm, 1.5 mm at thinned area	3 mm
Septum hardness	45 shore	45 shore	54 shore	54 shore	50 shore
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PCC20-ST3	6PBCC20-ST3	6PBCC20-STH	6PBCC20-STME	6PBCC20-CBT3
10 x 100/pack	6PCC20-ST3T	6PBCC20-ST3T	6PBCC20-STHT	6PBCC20-STMET	-
50 x 100/pack (8)50	6PCC20-ST3F	6PBCC20-ST3F	6PBCC20-STHF	6PBCC20-STMEF	-

#### Learn more about:

Manual and electronic crimpers and decrimpers







#### 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 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 screw vial and cap kits

Performance level 3 for high performance analysis

#### Description

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







_ r		
	Bonded caps	
Key attributes	TPX vials	
	0.2 mL with fixed glass insert	
Vial color and material	Amber TPX	
Vial total volume	200 μL	
Vial usable volume	150 μL	
Vial residual volume	1 μL	
Cap color and material	Black screw cap	
Septa color and material	White silicone/red PTFE	
Septa thickness	1 mm	
Ordering information	Cat. no.	
100/pack	<u>6PK1655</u>	









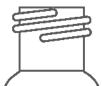
#### Specification certified screw vial and cap kits Continued

Performance level 3 for high performance analysis

#### Description

- Short thread screw kit
- 12 mm × 32 mm (diameter × 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	
Ordering information	Cat. no.	
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

#### Description

- Short thread screw kit
- 12 mm × 32 mm (diameter × height) flat bottom base
- Marking spot
- LC/GC certified







Vov attributas	Bonded caps	AVCS caps
Key attributes	Pre-slit septa	Pre-slit septa
Vial total volume	1.5 mL total recovery vials	0.3 mL fused insert vial
Vial color and material	Clear glass	Clear glass
Cap color and material	Grey screw cap (PP) Grey screw cap (PP)	
Septa color and material	Clear silicone/clear PTFE White silicone/blue PTFE	
Septa thickness	1 r	nm
Ordering information	Cat. no.	Cat. no.
100/pack	6PCK993	6PCK71LVW









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

Performance level 3 for high performance analysis

#### Description

- Short thread screw kit
- 12 mm × 32 mm (diameter × height) flat bottom base
- Marking spot
- LC/GC certified















	_	_	_	SureStop vials	SureStop vials	SureStop vials
Key attributes	Bonded caps	Bonded caps	AVCS caps	AVCS caps	AVCS caps	AVCS caps
	Pre-slit septa	Pre-slit septa	Pre-slit septa	Pre-slit septa	_	-
Vial total volume			2 n	nL		
Vial color and material	Clear glass	Amber glass	Clear glass	Amber glass	Clear glass	Amber glass
Cap color and material	Grey screw cap (PP)	Grey screw cap (PP)	Blue screw cap (PP)	Blue screw cap (PP)	Blue screw cap (PP)	Blue screw cap (PP)
Septa color and material	White silicone/ red PTFE	White silicone/red PTFE	White silicone/ blue PTFE	White silicone/ blue PTFE	White silicone/ red PTFE	White silicone/ red PTFE
Septa thickness			1 m	nm		
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PCK93W	6PCK76W	6PCK593W	6PCK576W	6PCK578W	6PCK575W





#### LC/GC certified assembled kits: 2 mL vials with 9 mm caps

Performance level 3 for high performance analysis

#### Description

- Short thread screw kit
- 12 mm × 32 mm (diameter × height) flat bottom base
- Marking spot
- LC/GC certified







,			
Var. atteilaritaa	Bonded caps	AVCS caps	
Key attributes	Pre-slit septa	Pre-slit septa	
Vial total volume	2 mL	2 mL	
Vial color and material	Clear glass	Amber glass	
Cap color and material	Grey screw cap (PP)	Grey screw cap (PP)	
Septa color and material	White silicone/red PTFE	White silicone/red PTFE	
Septa thickness	11	mm	
Ordering information	Cat. no.	Cat. no.	
100/pack	<u>6PCK193W</u>	<u>6PCK176W</u>	









#### **MSCERT** kits

#### Performance level 3 for high performance analysis

#### Description

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











, ,					
		SureSto	op vials		
Key attributes	AVCS caps				
	_	_	Pre-slit septa	Pre-slit septa	
Vial total volume		2 r	mL		
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				
Ordering information	Cat. no.	Cat. no. Cat. no. Cat. no.			
100/pack	6PMSCK534W	6PMSCK535W	6PMSCK540W	6PMSCK541W	





#### MSCERT kits Continued

#### Performance level 3 for high performance analysis

#### Description

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











,					
		Pre-slit	t septa		
Key attributes		Bonde	d caps		
	_	_	SureStop vials	SureStop vials	
Vial total volume	_	2 mL	_	_	
Vial color and material	Clear 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				
Ordering information	Cat. no. Cat. no. Cat.				
100/pack	6PMSCK641W	6PMSCK651W	6PMSCK601W	6PMSCK611W	









#### **MSCERT+ kits**

#### Performance level 3 for high performance analysis

#### Description

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











	SureSto	op vials		
AVCS caps				
_	_	Pre-slit septa	Pre-slit septa	
	2 r	mL		
Clear glass	Amber glass	Clear glass	Amber glass	
Blue screw cap				
Blue silicone/clear PTFE				
1 mm				
Cat. no. Cat. no. Cat. no. Cat.				
6PMCK34W	6PMCK35W	6PMCK40W	6PMCK41W	
	Cat. no.	AVCS  2 r  Clear glass Amber glass  Blue sc  Blue silicone  1 r  Cat. no. Cat. no.	- Pre-slit septa  2 mL  Clear glass Amber glass Clear glass  Blue screw cap  Blue silicone/clear PTFE  1 mm  Cat. no. Cat. no. Cat. no.	





#### MSCERT+ kits Continued

#### Performance level 3 for high performance analysis

#### Description

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











	SureStop vials Fused-insert			d-insert
Key attributes	Bonded			
	_	_	_	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			
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.
100/pack	6PMCK341W	6PMCK351W	6PMCK30LVW	6PMCK36LVW









#### MSCERT+ kits Continued

#### Performance level 3 for high performance analysis

#### Description

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





/	
	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
Ordering information	Cat. no.
100/pack	6PMCK39TR





#### TOC certified screw vial and cap kits

Performance level 3 for high performance analysis

#### Description

- 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.

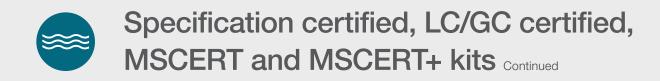


Vial description	40 mL (24 mm) screw glass vial				
Vial color and material	Clear				
Cap description	Bonded white scre	Bonded white screw cap (24-400) (PP)			
Septum color and material	White silicone/clear PTFE open top				
Septum thickness	3 mm				
Septum hardness	50 shore				
Certification level	TOC certification (20 ppb)  TOC certification (10 ppb)				
Ordering information	Cat. no.	Cat. no.			
72/pack	6PK40TOC20	6PK40TOC10			









### EPA certified assembled kits: 40 mL with 24 mm caps

Performance level 3 for high performance analysis

#### Description

- Screw thread 24 mm (24-400)
- 28 mm × 95 mm (diameter × height) flat bottom base
- Processed and packaged under a registered ISO Quality Management System
- Laboratory certified to meet U.S. EPA Super Fund Standards in accordance with the latest edition of EPA's "Specifications and Guidance for Contaminant Free Sample Containers"
- · Every case contains a Certificate of Analysis and is custody sealed to ensure reliable chain-of-custody



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
Ordering information	Cat. no.
72/pack	6ACK40COTAS

# 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			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	
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
1/pack	60180-CR8	60180-CR11	60180-CR13	60180-CR20	60180-CR20SS

<sup>\*</sup>Crimper can be sterilized, for clean room applications



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
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.	Cat. no.
1/pack	_	60180-DCR11	60180-DCR13	_	60180-DCR20

<sup>\*\*</sup>These crimper are not for flip top/flip off closures. Further specials are available on request or see our selection of electronic crimper on the following page.

#### 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

Continued

### Electronic hand-held battery-operated crimper (black)

Generation 4



Product description	Electronic hand-held battery-operated crimper (black). Generation 4			
Suitable for	8 mm crimp caps	11 mm crimp caps	13 mm crimp caps	20 mm crimp caps
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.
1/pack	60180-ECR8	60180-ECR11	60180-ECR13	60180-ECR20

### Electronic hand-held battery-operated decrimper (black)

Generation 4

Product description	Electronic hand-held battery-operated decrimper (black). Generation 4			
Suitable for	_	11 mm crimp caps	13 mm crimp caps	20 mm crimp caps
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.
1/pack	_	60180-EDCB11	60180-EDCB13	60180-EDCB20

### Electronic crimper for FTFO and Flip-Off crimp closures

Product description	13 mm electronic crimper for FTFO	20 mm electronic Flip-Off crimper	
Ordering information	Cat. no.	Cat. no.	
1/pack	60180-ECR13FO	60180-ECR20FO	

Continued

### Electronic high-power programmable crimp station



Product description Electronic high-power crimp station (without crimp heads) (black). Generation 2	
Ordering information	Cat. no.
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
Ordering information	Cat. no.	Cat. no.	Cat. no.
1/pack	60180-ECRH11KIT	60180-ECRH13KIT	60180-ECRH20KIT

Continued

## Accessories for electronic high-power programmable crimper



Product description	Accessory base for electronic crimpers: Height adjustable and solvent resistant (consists of base plate and bar)
Ordering information	Cat. no.
1/pack	ECRH-STAND



Product description	8 mm crimp head	11 mm crimp head	13 mm crimp head	20 mm crimp head
Ordering information	Cat. no.	Cat. no.	Cat. no.	Cat. no.
1/pack	ECMJ-8	ECMJ-11	ECMJ-13	ECMJ-20

Product description 13 mm Flip-Off crimp head		20 mm Flip-Off crimp head	
Ordering information Cat. no.		Cat. no.	
1/pack	ECMJ-13FO	ECMJ-20FO	

## Accessories for electronic high-power programmable decrimper

Product description	11 mm decrimp head	13 mm decrimp head	20 mm decrimp head
Ordering information	Cat. no.	Cat. no.	Cat. no.
1/pack	ECDJ-11	ECDJ-13	ECDJ-20

## 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<sup>™</sup> 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 timeLow volume and high recovery cavity

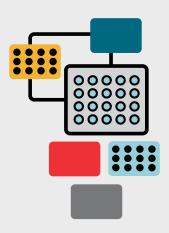
#### Solutions for all applications

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

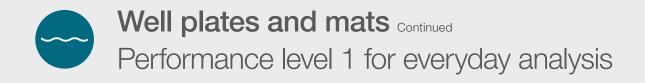
- Thermo Scientific WebSeal well plates are manufactured from a GC/MS tested polypropylene material
- Microplates are chemically and thermally resistant and will tolerate temperatures from -80° C to +121°C
- SBS and ANSI standard footprint design for broad instrument compatibility
- Microplates are ideal 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
	14.4	V-Shape,	450	10-400	60180-P100	20
	14.4	8 mm diameter	450	10-400	60180-P130	120
96 well microplate, round well			500	00.500	60180-P102	10
Touris won	14.5	V-Shape, 8 mm diameter	500	20-500	60180-P132	12
		o mini diameter	2000	50-1900	60180-P134	60
	26.5	- U-shape,	1100	50-900	60180-P154	50
	04.0	8 mm diameter, mid height plate	1000	E0 1000	60180-P103	5
96 well plates, round well	31.6		1300	50-1000	60180-P133	50
round won	45.0	U-shape, 8 mm diameter, deep-well plate	0000	50.4000	60180-P104	5
	45.0		2000	50-1900	60180-P124	50
	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
	45.5	V-Shape,	1.45	4.100	60180-P109	10
	15.5	square, micro titer plate	145	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	- 202	0-240	60180-P127	100



#### 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

Description	Color	Material	Well design	Pre-slit	Cat. no.	Pack size
WebSeal mats CLR silicone mat, round well		Silicone	96 round well, 8 mm diameter, flat base with cross	_	60180-M184	50
WebSeal mats (alcohol resistant),		EVA	96 round well,	No	60180-M101	5
round well	Clear	LVA	8 mm diameter	_	60180-M171	50
WebSeal CLR silicone mat,		Silicone			60180-M134	_
round well			96 round well – flat base, 8 mm diameter.	Yes	60180-M183	_
WebSeal mats (solvent resistant)	Blue	Silicone/	large penetration area	No	60180-M102	5
round well	Dide	PTFE		Yes	60180-M103	_
WebSeal mats (alcohol resistant),		EVA	96 square well - flat base		60180-M177	- 50
square well		LVA	90 Square Weii - Ilat Dase	No	60180-M178	
		Silicone -	96 square well – flat base, 8 mm diameter,		60180-M121	
			large penetration area	Yes	60180-M123	5
WebSeal CLR silicone mat,	Clear		96 square well – flat base, 8 mm diameter, flat base with cross	- No	60180-M185	50
square well	Oleai		204 aguara wall	- 140	60180-M126	- 5
			384 square well	Yes	60180-M150	- 5
			384 square well, flat base with cross		60180-M186	50
Sealing tape, -40°C - 90°C		PE/silicone		No	60180-M142	
Sealing tape, -70°C – 100°C		PES/silicone			60180-M143	_
Sealing tape, -80°C - 120°C	Silver	Aluminum/ silicone		N/A	60180-M144	100
Sealing tape with SRA (synthetic rubber adhesive)		Polyolefin/ rubber	N/A	No	60180-M145	_
Re-sealing tape with 3 layer	Clear	PET/silicone/		Yes	60180-M146	
no adhesive at cavity area		PET			60180-M176	25
Hand held sealing tape applicator	Gold	N/A		N/A	60180-M950	2
Hand held mat applicator	Black				60180-M999	1
WebSeal cutter for vial removal	Silver	N/A	N/A	N/A	60180-M975	1

# WebSeal Performance level 2 products



## Well plates and mats

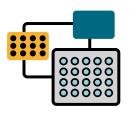
Performance level 2 for high-throughput applications

#### WebSeal well plates

Plastic, non-coated, non-sterile, certified

- Polypropylene microplates are manufactured from ultra low bleed high purity basis resin
- Plates are 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

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	000	10-300	60180-P215	10
96 well microplate, round well	14.7	U-shape,	270	10-250	60180-P206	100
Tourid well	14.7	7 mm diameter	210	10-230	60180-P216	10
		V-shape, 7 mm diameter	220	10-190	60180-P207	100
				10 100	60180-P217	10
	33	U-shape, 7 mm diameter	1000	50-900	60180-P228	50
96 well mid height plates, round well	41.6	U-shape,	1200	50-1100	60180-P201	50
	41.6	7 mm diameter	1200		60180-P211	5
96 deep well plate,	44.4	V-shape, 8 mm diameter	2000	50-1900	60180-P202	50
square well		o mini diameter			60180-P212	5
	14.4	U-shape, square,	58	2-35	60180-P203	60
384 well microplate	1-1	micro titer plate			60180-P213	10
oo i won moropiato	30.2	V-shape, square,	300	5-240	60180-P204	48
	50.2	deep well plate		0 2 10	60180-P214	6



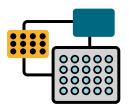
# Performance level 2 for high-throughput applications

#### 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

Description	Color	Material	Well design	Pre-slit	Cat. no.	Pack size
WebSeal mat (alcohol resistant), round well		EVA	96 round well, 7 mm diameter		60180-M179	100
			96 round well – flat base, 5.6 mm diameter, cross	No	60180-M210	50
			96 round well – flat base, 7 mm diameter,		60180-M105	
WebSeal CLR silicone mat, round well			large penetration area	– Yes	60180-M116	- - 5
			96 round well – 7 mm diameter, step,	165	60180-M113	_ 5
			small penetration area	_	60180-M149	
	Clear Silio	Silicone	96 square well – flat base, 8 mm diameter, flat base with cross	No	60180-M185	50
			96 square well – flat base, 8 mm diameter,		60180-M121	
WebSeal CLR silicone mat, square well			large penetration area	Yes	60180-M123	— 5 —
Square wen			384 square well	No	60180-M126	
			for 384 well plates	Yes	60180-M150	
			384 square well, flat base with cross for 384 microtiter plates	– No	60180-M186	50
WebSeal mat (solvent resistant),			96 round well – flat base,	INO	60180-M111	
round well			step, 7 mm diameter	Yes	60180-M112	
			96 square well – flat base, 8 mm diameter,	No	60180-M120	_
WebSeal mat (solvent resistant),	Blue	Silicone/	large penetration area	Yes	60180-M122	- 5
square well	Dide	PTFE	384 square well	No	60180-M125	_
			for 384 well plates	Yes	60180-M131	_
WebSeal mat			96 round well – dome base,	No	60180-M108	
			7.2 mm diameter	Yes	60180-M115	

# WebSeal Performance level 3 products



## Well plates and mats

Performance level 3 for high performance analysis

#### WebSeal Plate+ plates

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
OC well misus mists		U-shape, 7.0 mm diameter	300	250	60180-P330	10
96 well microplate, round well	14.7	V-shape, 7.0 mm diameter	220	190	60180-P332	10
		Flat bottom, 7.0 mm diameter	370	300	60180-P334	10
	14.6	V-shape, 7 mm diameter	220	190	60180-P333	100
96 well mid height plate,	26.5	U-shape, 8 mm diameter	1100	50 to 900	60180-P350	10
round well	33	U-shape, 7 mm diameter	1100	50 to 900	60180-P343	10
	40.6	U-shape, 7.2 mm diameter	1.2 mL	1.0 mL	60180-P336	10
96 deep well plate,	14.4	V-shape, 8 mm diameter	145	100	60180-P341	100
square well	43.7	V-shape, 8 mm diameter	2.4 mL	2.0 mL	60180-P338	10
384 well microplate	15.0	Square-rounded, flat, micro titer plate	120	90	60180-P340	10
	22.0	Square-rounded, U-shape, deep well plate	240	180	60180-P342	6



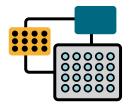
# Performance level 3 for high performance analysis

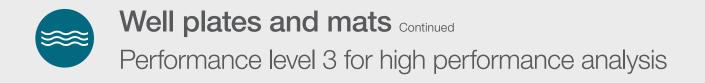
## WebSeal glass inserted plate kits

#### 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



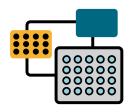




## WebSeal glass inserted plate kits Continued

## With 96-position mats

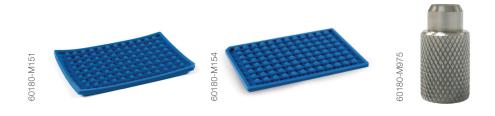
Kit type	Vial material	Total volume (μL)	Vial dimension (mm)	Profile	Mat material	Total height (mm)	Vial cat. no.	Mat cat. no.	Kit cat. no.	Pack size
96 well small volume microplate with sealing mat	Clear glass	500	6.5 x 31	Taper	Silicone/ PTFE	32.0	60180-V100	60180-M151	60180-K100	5
96 well small volume microplate with sealing mat and cutting tool	Clear glass	700	6.5 x 41.4	Taper	Silicone/ PTFE	44.0	60180-V101	60180-M151	60180-K101	5
	Clear glass	1100	7.45 x 38.5	Round	Silicone/ PTFE	41.5	60180-V104	60180-M153	60180-K104	5
96 deep well plate with sealing mat	Clear glass	1500	7.25 x 60.5	Round	Silicone/ PTFE	64.5	60180-V106	60180-M153	60180-K106	5
96 square well plate with sealing mat	Clear glass	1000	7.6 x 45	Constrict- ed	Silicone/ PTFE	47.3	_	60180-M111	60180-K107	1
96 square well plate with sealing mat	Clear glass	1000	7.6 x 45	Constrict- ed	Precut	47.3	_	60180-M112	60180-K108	1



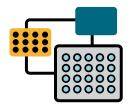
## WebSeal kit accessories

#### 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	_
30 Well Webbearmat	60180-K103	Yes	60180-M152	
96 well WebSeal mat	60180-K104,	No	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



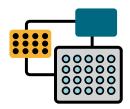
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#### Plate vials

#### For 96 wells



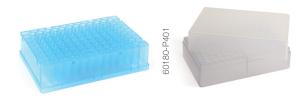
Kit type	Vial material	Total volume (μL)	Vial dimension (mm)	Profile	Cat. no.	Pack size
Micro titer plate vial for 96 wells	Class slags	500	6.5 x 31	Тоюон	60180-V100	
	Clear glass	700	6.5 x 41.4	- Taper	60180-V101	500
	Clear glass	1100	7.45 x 38.5		60180-V104	
Deep well plate vial for 96 wells		1500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



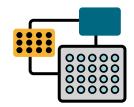
# WebSeal kit accessories Continued

## Well plates and racks





Kit type	Vial material	Total volume (μL)	Profile	Total height (mm)	Cat. no.	Pack size	
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		
PP 96 well square well plate (60180-K107/108)	DD	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	



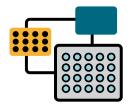
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#### Plate vials and accessories

## For 96 wells



Kit type	Vial material	Total volume (μL)	Vial dimension (mm)	Profile	Septum	Cat. no.	Pack size
Deep well plate vial for 96 wells	Clear aless	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	960
PE cap, red, center hole for 96 Well Plate Inserts		_	_	_	Silicone/ PTFE, pre-slit, 45°	60180-C100	96
Micro-tube-rack-system, positions (for 60180-K104)		_	_	_	_	60180-P407	96



Continued

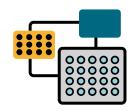
#### WebSeal clear glass inserted plate kits

#### 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,	60180-V108		60180-K200	
96 deep well Plate	350	6 x 42.5	Taper	pre-slit, 45°	60180-V109	60180-C100	60180-K201	1
96 square	1000	7.6 × 45.9	Dound	Silicone/ PTFE, 45°	60190 1/110	_	60180-K202	-
well plate	1000	7.6 x 45.9	Round	Silicone/PTFE, pre-slit, 45°	- <u>60180-V110</u>		60180-K203	-



Continued

#### Barcoded well plates

## For Thermo Scientific™ Vanquish™ HPLC and UHPLC systems

#### Description

- 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

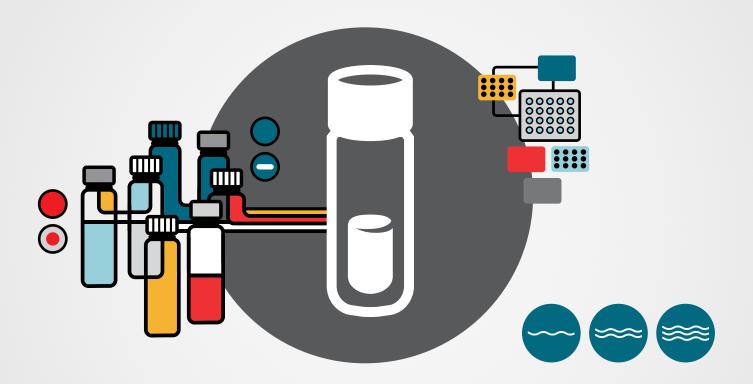
60180-P206-216B





Description	Total height	Well format	Total volume μL/well	Working volume range μL/well	Cat. no.	Pack size
	14.7 -	U-shape,	270	10-250 -	60180-P206B	100
96 well microplate, round well, barcoded		7 mm diameter	210	10-230	60180-P216B	10
	14.7	V-shape,	220	10-190 -	60180-P207B	100
		7 mm diameter	220	10-190	60180-P217B	10
	31.6	U-shape,	1300	50-1000	60180-P103B	5
96 well mid height plate,		8 mm diameter			60180-P133B	50
round well, barcoded	41.6	U-shape,	1000	50-900 -	60180-P201B	50
	41.0	7 mm diameter	1000	50-900 -	60180-P211B	5
96 deep well plate, square well, barcoded	44.0	V-shape,	2000	50.1000	60180-P105B	0
	44.0	square	2000	50-1900 -	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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