

Agilent CrossLab











Selection Guide for GC Systems

Put Agilent quality supplies
to work across your lab



CrossLab Selection Guide for GC Systems

Table of Contents

	1 CrossLab Product Introductions
	12 CrossLab Supplies for Bruker, Varian* GC Systems
	17 CrossLab Supplies for PerkinElmer GC Systems
	20 CrossLab Supplies for Shimadzu GC Systems
	25 CrossLab Supplies for Thermo Scientific GC Systems
	28 CrossLab Supplies for CTC Analytics GC Autosamplers
	29 CrossLab Inlet Septa
	34 CrossLab Vials and Closures

*Formerly Varian GC systems, now Bruker products

Agilent CrossLab

Agilent CrossLab is a growing portfolio of supplies critical to instrument performance and productivity, manufactured to perform seamlessly with a variety of analytical instruments in your lab, regardless of make or model. Look inside this selection guide to find a comprehensive range of products to use across your lab.

We currently support:

- Bruker, Varian*
- CTC
- PerkinElmer
- Shimadzu
- Thermo Scientific
- And more coming soon

Our growing portfolio includes the following products, featuring easy-to-use packaging for improved productivity:

- Premium non-stick inlet septa
- Ultra Inert inlet liners
- Liner O-rings
- Capillary column ferrules and nuts
- Autosampler syringes
- Vials and closures

*Formerly Varian GC systems, now Bruker products



Agilent CrossLab is more than supplies:

- Over 40 years of chromatography expertise and ongoing innovation
- Optimal performance for both routine and challenging applications
- Dependable worldwide product availability and delivery
- Convenience of consolidated purchasing



CrossLab Inlet Liners

Liners are the centerpiece of the inlet system where sample is vaporized and mixed with the carrier gas. CrossLab GC inlet liners have the perfect mix of liner configurations and chemistries to solve your application challenges.

Choose from split, splitless, PTV, and other inlet liner designs in either the new, innovative Ultra Inert deactivation or Agilent's popular proprietary deactivation, now referred to as Agilent Original deactivation. With part number and lot number silk screened on CrossLab liners, identification and re-ordering has never been easier.

CrossLab Liners with Ultra Inert Deactivation

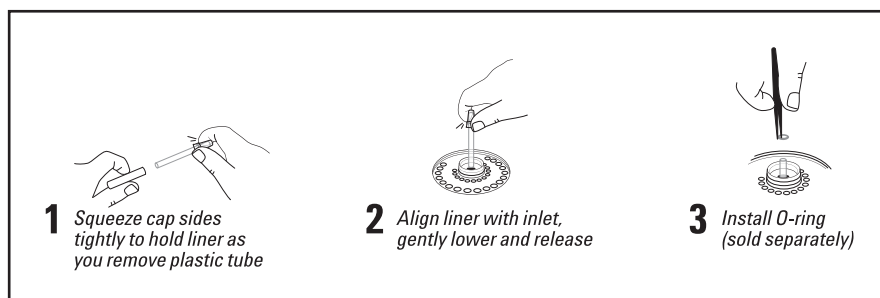
Developed for high sensitivity analysis, Agilent's Ultra Inert deactivation provides extreme surface inertness – even for liners containing glass wool. Ultra Inert chemistry was developed using a suite of tests specifically designed to stress then evaluate liner activity, resulting in liners featuring:

- **Reproducibility** – highest level and consistent inertness for active compounds such as acids and bases
- **Robustness** – tested with a sequence of 100 injections of Endrin/DDT with < 20% degradation, allowing use of glass wool even with highly active compounds at trace (0.5 ng on-column) levels
- **Reliability** – lot-tested for inertness to ensure consistent and efficient deactivation using both acidic and basic probes at trace level (2 ng) on column, with low to no bleed or background contamination

Ultra Inert liners are delivered in Agilent's exclusive Touchless packaging. Touchless packaging aids in easy installation of the new, clean, preconditioned liner – without risk of contamination from touching.

Consider the following to determine how often to change your liners:

- Previous use pattern
- Sample cleanliness
- Chromatographic abnormalities, such as
 - ✓ Peak shape changes
 - ✓ Peak discrimination
 - ✓ Poor reproducibility
 - ✓ Sample pyrolysis
 - ✓ Active analyte response loss or decomposition



CrossLab Ultra Inert Touchless liner packaging includes visual installation guide

Get a robust, reproducible, and reliable inert flow path with Agilent CrossLab Ultra Inert Inlet Liners – even when containing glass wool

Forensic basic drugs test conditions

**Column: DB-5MS Ultra Inert
122-5512UI
15 m x 0.25 mm, 0.25 µm**

Sample: 5 ppm Checkout mixture for GC/MS forensic/toxicology analyzer (P/N 5190-0471)

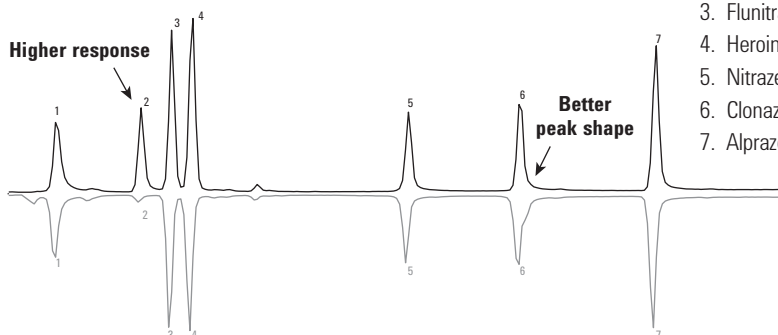
Injection: 1 µL splitless @ 280 °C (hold 0.75 min)

Oven: 100 °C (0.5 min) to 325 °C at 20 °C/min and hold 2.5 min

Carrier: He, 18.74 psi (adj to RT lock), constant pressure

Detector: MSD; Source temp @ 300 °C, Quad temp @ 150 °C, Transfer line @ 300 °C; Acquisition mode, SIM/scan

Agilent CrossLab Ultra Inert single taper liner with wool



1. Oxycodone
2. Temazepam
3. Flunitrazepam
4. Heroin
5. Nitrazepam
6. Clonazepam
7. Alprazolam

Restek Siltek deactivated gooseneck liner with deactivated wool (cat. no. 22406.213.5)

Agilent CrossLab Ultra Inert deactivated liners with wool contribute to higher response and better peak shape for very active forensic basic drug compounds than similar Restek Siltek liners.

CrossLab Liners with Agilent Original Deactivation

Developed to complement fused silica capillary column technology, Agilent's proprietary deactivation, now referred to as Agilent Original deactivation, has been successfully used for years. Proven to deliver a long-lasting surface deactivation, this proprietary chemistry and manufacturing process was previously available for Agilent gas chromatographs only but is now available for other GC systems. Agilent Original deactivation is recommended for everyday analysis.

CrossLab Liner O-rings

- Liners are sealed in the inlet with fluoroelastomer or graphite O-rings
- Graphite O-rings are used when inlet temperatures exceed 350°C
- Fluoroelastomer O-rings are easier to replace than graphite O-rings, which deform and flake apart more easily

Ready for chromatographic use, CrossLab fluoroelastomer O-rings feature:

- Proprietary two-step cleaning and conditioning process eliminates out-gassing of contaminants, which is especially important for trace, ECD and MSD analyses
- Plasma-treatment for a non-stick, contaminant-free surface that won't stick to the inlet metal surface
- Novel translucent dial package that conveniently delivers one clean O-ring at a time and makes it easy to know when to reorder



CrossLab Capillary Column Ferrules

A variety of capillary column ferrules are available to meet your application requirements, including 100% Graphite, 100% Vespel and Vespel/Graphite ferrules.

Using the wrong ferrule or a worn-out ferrule to seal your column connection can result in inconsistent and unreliable chromatography. An improper ferrule can cause leaks, which allow air and other contaminants to enter the instrument through the column seal, causing major interference with column and detector performance.

The ideal ferrule provides a leak-free seal, accommodates various column outer diameters, seals with minimum torque, withstands temperature cycling, and does not stick to the column or fittings.

For optimum performance, ferrules should be replaced every time the column is replaced and when performing column maintenance.

To minimize problems, follow these general techniques for ferrule installation:

- Don't overtighten – finger tighten the column nut, then use wrench to tighten
- Maintain cleanliness
- Bake out ferrules prior to use (Vespel and Vespel/Graphite only)
- Avoid contamination, such as fingerprint oils
- Inspect used ferrules with magnifier for cracks, chips, or other damage before reusing them
- Change ferrules when new columns or injector/detector parts are installed



Tips & Tools

Look for the following signals that indicate ferrule damage:

- Background noise from oxygen diffusing into the system
- Column bleed catalyzed by oxygen
- Sample degradation
- Sample loss
- Increase in detector signal/noise
- Poor retention time reproducibility



Ferrule Selection Recommendations

Ferrule Type	Upper Temp. Limit	Usages	Advantages	Limitations
Graphite (100%)	450 °C	<ul style="list-style-type: none"> • General purpose for capillary columns • Suitable for FID and NPD • Recommended for high temperature and cool on-column applications 	<ul style="list-style-type: none"> • Easy-to-use stable seal • Higher temperature limit • Can be removed easily 	<ul style="list-style-type: none"> • Not for MS or oxygen-sensitive detectors • Soft, easily deformed or destroyed • Possible system contamination
Vespel/Graphite (85%/15% or 60%/40%)	350 °C	<ul style="list-style-type: none"> • General purpose for capillary columns • Recommended for MS and oxygen-sensitive detectors • Most reliable leak-free connection 	<ul style="list-style-type: none"> • Mechanically robust • Long lifetime 	<ul style="list-style-type: none"> • Not reusable • Flows at elevated temperature • Must re-tighten frequently
Vespel (100%)	280 °C	<ul style="list-style-type: none"> • Isothermal operation • Can be reused or removed easily • Excellent sealing material when making metal or glass connections 	<ul style="list-style-type: none"> • Mechanically robust • Long lifetime • Can be reused or removed easily 	<ul style="list-style-type: none"> • Leaks after temperature cycle • Flows at elevated temperature • Must re-tighten frequently



Tips & Tools

100% Vespel ferrules should only be used for isothermal applications.



CrossLab Autosampler Syringes

With a broad selection of syringes for auto injection, CrossLab autosampler syringes provide what you need for accurate and effective sampling. CrossLab syringes meet all fit, form, and function criteria for specific autosampler models. Agilent delivers more value in every autosampler syringe:

- Lot number printed directly on the barrel with a corresponding Certificate of Conformance
- Illuminating backing strip, for effortless viewing of the volume scale
- Environmentally friendly packaging and improved design that reduces waste
- Individually packaged for contaminant-free use right out of the box

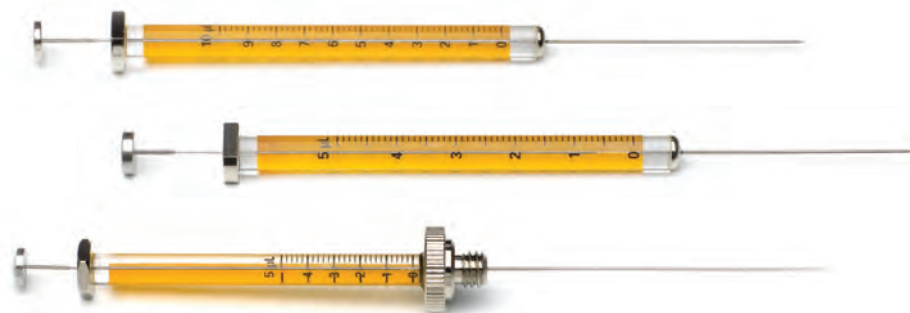


Tips & Tools

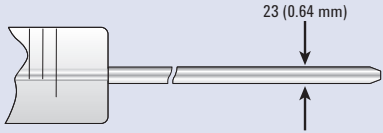
Replace syringe if dirt is noticeable, syringe cannot be cleaned or plunger doesn't slide easily. Replace needle if septa wear is abnormal or needle is clogged.

Typical Needle Gauge Dimensions

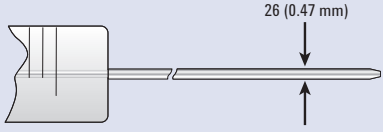
Gauge	OD		ID	
	mm	inches	mm	inches
23	0.64	0.0248	0.11	0.0043
25	0.50	0.0197	0.20	0.0079
26	0.47	0.0184	0.11	0.0043



Needle Gauge



Single Gauge 23 (0.64 mm)
Packed column injector ports
Split/splitless injector ports



Single Gauge 26 (0.47 mm)
Packed column injector ports
Split/splitless injector ports

Needle Termination

Needle terminations are available in fixed or removable, with various tip styles.



Tips & Tools

Follow manufacturer's recommendation for syringe cleaning and regularly inspect syringe barrel for sample build-up and needle tip for wear.

Fixed (cemented)

- Economical, reproducible injections for autosamplers
- Preferred for applications requiring trace level samples
- Recommended for use where probability of needle bending is minimal
- Can be heated up to 70°C

Removable needle

- Versatile option for injections
- Needle can be replaced if damaged or clogged
- Allows needle to be changed for different applications
- Can be heated up to 120°C



CrossLab Inlet Septa

Inlet septa are a key component of sample introduction. Septa maintain the leak-free seal and exclude air from the inlet. They come in many different sizes and are made from different types of materials specific to inlet type and analysis needs.

Septa are available for a variety of different applications and have different upper temperature limits. Lower temperature septa are usually softer, seal better, and can withstand more punctures (injections) than their high-temperature counterparts. If septa are used above their recommended temperatures, they can leak or decompose, causing sample loss, lower column flow, decreased column life and ghosting. To minimize problems:

- Use within the recommended temperature range
- Change regularly
- Use septum purge when available
- Use autoinjectors
- Regularly inspect needle tips for wear



Replace septa regularly to avoid:

- Leaks
- Decomposition
- Sample loss
- Reduced column or split vent flow
- Ghost peaks
- Column degradation

Premium Non-Stick Septa

CrossLab premium non-stick inlet septa are designed and manufactured to provide a reliable noncontaminating seal. Our tri-fold blister pack ensures that each septum remains clean and ready to use.

- Proprietary plasma treatment prevents sticking and unnecessary inlet cleaning
- Innovative blister packaging keeps each septum clean and ready for use
- Center point guides the needle for easy penetration, less coring and longer life
- Precision molding assures accurate fit in the inlet
- Each batch is tested for bleed
- Premium formulations selected for sealing and chromatographic cleanliness
- No need to bake septa before using

Summary of Premium Inlet Septum Characteristics

Septum Type	Bleed	Lifetime	Temperature Limits
Non-Stick BTO (Bleed and Temperature Optimized)	◆◆◆	◆	to 400°C injection port temp
Non-Stick Advanced Green	◆◆	◆◆	to 350°C
Non-Stick Long-Life	◆	◆◆◆	to 350°C

◆◆◆ = best ◆◆ = very good ◆ = good

General Purpose Septa

Agilent CrossLab general purpose septa are made from an enhanced injection-molded silicone rubber and are good for routine use. The septa material, gray in color, is specified to withstand over 200 automatic injections at an injection port temperature of 350°C.



For a comprehensive selection guide, diameter guide and ordering information, see the complete CrossLab Inlet Septa section, starting on page 29.

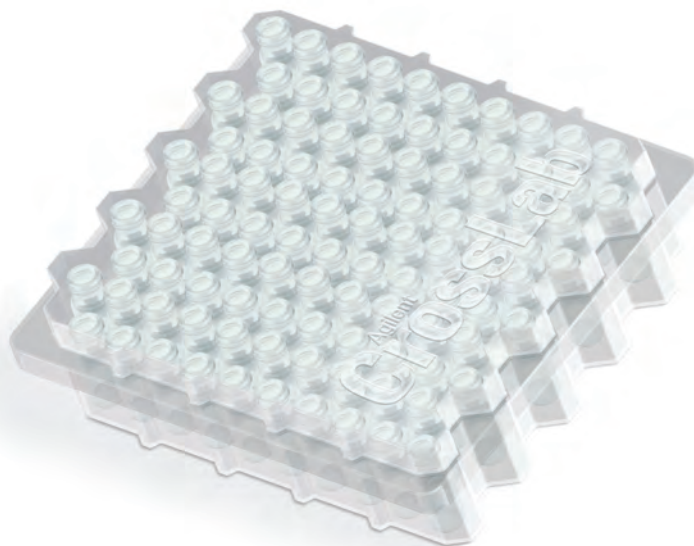
CrossLab Vials and Closures

Agilent CrossLab vials and closures are thoroughly tested to ensure the highest level of quality. Additionally, CrossLab vials are:

- Manufactured in an ISO 9001 certified facility
- Made from First Hydrolytic Type 1 Class A or Class B borosilicate glass, which conforms to US FDA, USP, and EU Pharmacopeia standards
- Protected by proprietary packaging with a crush barrier to reduce vial breakage
- 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 specifications



For a comprehensive vial compatibility chart, identification guide, septum recommendations, and ordering information, see the complete CrossLab Vials and Closures section, starting on page 34.

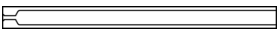







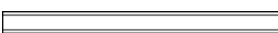


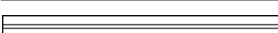




CrossLab Supplies for Bruker, Varian* GC Systems

Products highlighted in gray are coming soon.

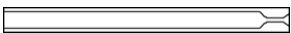

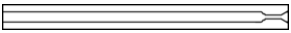




Liners for 1177 Split/Splitless Injector Ports

	Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Split/Splitless Liners								
	Single taper	4.0	6.3	78.5	1000	5/pk	8004-0151	8004-0101
	Single taper, with wool	4.0	6.3	78.5	1000	5/pk	8004-0152	8004-0102
	Double taper	4.0	6.3	78.5	1000	5/pk	8004-0155	8004-0105
	Gooseneck, with wool	4.0	6.5	78.5	1000	5/pk	8004-0170	8004-0114
	Recessed gooseneck, with wool	4.0	6.3	78.5	1000	5/pk	8004-0153	8004-0103
	Gooseneck	2.0	6.5	78.5	250	5/pk	8004-0178	8004-0119
Splitless Liners								
	Straight, with wool	4.0	6.5	78.5	1000	5/pk	8004-0173	8004-0116
	Gooseneck	4.0	6.5	78.5	1000	5/pk	8004-0165	8004-0113
Split Liners								
	Straight-through	4.0	6.3	78.5	1000	5/pk	8004-0156	8004-0106
	Straight, with wool	4.0	6.3	78.5	1000	5/pk	8004-0154	8004-0104
	With frit, gooseneck	4.0	6.3	78.5	1000	5/pk	8004-0158	
Direct Liners								
	Straight-through	1.2	6.3	78.5	90	5/pk	8004-0157	8004-0107

*Formerly Varian GC systems, now Bruker products

Products highlighted in gray are coming soon.

Liners for 1078/1079 Injector Ports



Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Split/ Splitless Liners							
 Single taper	3.4	5.0	54	500	5/pk	8004-0160	8004-0108
 Gooseneck, with wool	2.0	5.0	54	250	5/pk		8004-0118
Splitless Liners							
 Single taper	2.0	5.0	54	170	5/pk	8004-0161	8004-0109
Split Liners							
 Gooseneck	3.4	5.0	54	500	5/pk	8004-0164	8004-0112
 With frit, gooseneck	3.4	5.0	54	500	5/pk	8004-0159	
 With frit, gooseneck	3.4	5.0	54	500	5/pk	8004-0171	
Other Liners							
 SPME, straight	0.8	5.0	54	30	5/pk	8004-0176	

*Formerly Varian GC systems, now Bruker products

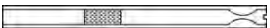


Products highlighted in gray are coming soon.


Liners for 1093/1094 Injector Ports

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Direct Liners							
 Split liner for 0.25/0.32 mm ID columns	0.5	4.6	54	10	5/pk	8004-0167	
 Split liner with 0.5 mm restriction for 0.53 mm ID on-column	0.8	4.6	54	30	5/pk	8004-0162	8004-0110

Liners for 1075/1077 Injector Ports

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Split Liners							
 Split liner with wool	4.0	6.3	72	1000	5/pk	8004-0163	8004-0111

Liners for 1060/1061 Injector Ports

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Direct Liners							
 Double gooseneck liner	0.9	6.3	72	1000	5/pk	8004-0168	

*Formerly Varian GC systems, now Bruker products

Liner O-rings

Description	Unit	Part No.
Non-stick fluoroelastomer O-ring, 1177 split/splitless, 6.3/6.5 mm OD	10/pk	8004-0201
Graphite O-ring, 1177 split/splitless, 6.5 mm OD	10/pk	8004-0202
Graphite O-ring, 1177 split/splitless, 6.3 mm OD	10/pk	8004-0203
Graphite O-ring, 1078/1079 injector, 5 mm ID	10/pk	8004-0204



Graphite O-rings

Capillary Column Ferrules

Injector	Fitting Size (in.)	Ferrule ID (mm)	Column ID (mm)	Hole	Unit	60% Vespel/ 40% Graphite	Graphite	Vespel
1177, 1079	1/16	0.3	0.18 mm ID or smaller	1	10/pk	8004-0211		8010-0306
	1/16	0.4	0.25	1	10/pk		8010-0301	8010-0307
	1/16	0.4	0.25	2	10/pk	8004-0213		
	1/16	0.425	0.25	1	10/pk	8004-0212		8004-0219
	1/16	0.5	0.32	1	10/pk	8004-0214	8010-0302	8010-0308
	1/16	0.5	0.32	2	10/pk	8004-0215	8010-0303	8004-0218**
1177, 1079, 1061, 1041	1/16	0.8	0.53	1	10/pk	8004-0216	8010-0304	8010-0309

Injector	Fitting Size (in.)	Ferrule ID (in.)	Column OD (in.)	Hole	Unit	60% Vespel/ 40% Graphite	Graphite	Vespel
1093, 1061,1041	1/4	1/4	1/4	1	10/pk	8004-0217*	8010-0305*	

*Straight body

**1177 Injector only

*Formerly Varian GC systems, now Bruker products





CrossLab Supplies for Bruker, Varian* GC Systems

Column Nuts

Description	Unit	Part No.
Column nut, brass, 1177, 1079, 1061, or 1041 injector	2/pk	8004-0311
Column nut, stainless steel, 1093 injector	2/pk	8004-0312

Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Needle Gauge/Length (mm)/Tip	Syringe	Replacement Needle	Replacement Plunger
Varian* CP8400, CP8410, CP9010, CP9050	10	Fixed needle	23/50/cone tip	8010-0351		
		Fixed needle	26/50/bevel tip	8004-0001		
		Removable needle	26/50/cone tip	8004-0003	8004-0004, 2/pk	
Varian* 8035, 8100, 8200		Fixed needle, gas tight	26/53/single hole tip	8004-0002		8004-0007
		Removable needle, gas tight	25/53/single hole tip	8004-0005	8004-0006, 2/pk	8004-0007

*Formerly Varian GC systems, now Bruker products



Looking for Inlet Septa or Autosampler Vials?

Please see page 29 for Inlet Septa and page 34 for Vials.

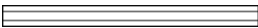




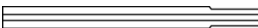

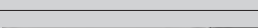







CrossLab Supplies for PerkinElmer GC Systems

Products highlighted in gray are coming soon.





Liners for AutoSystem, AutoSystem XL, Clarus Systems

	Description	ID (mm)	OD (mm)	Length (mm)	Volume (μL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Split/Splitless Liners								
	PSS straight	2.0	4.0	86.2		5/pk	8003-0153	8003-0103
	PSS straight with bottom restriction	2.0	4.0	86.2	260	5/pk	8003-0158	
	PSS on-column	2.0	4.0	86.2	250	5/pk	8003-0165	8003-0110
	PSS straight	1.0	4.0	86.2	65	5/pk	8003-0157	
Split/Large Volume Splitless Liners								
	Straight with bottom restriction	4.0	6.2	92.1	1150	5/pk	8003-0159	8003-0105
Splitless Liners								
	Straight-through	2.0	6.2	92.1	300	5/pk	8003-0152	8003-0102
	Straight	2.0	6.2	92.1	300	5/pk	8003-0162	8003-0107
	Straight, wool	2.0	6.2	92.1	300	5/pk	8003-0161	
Split Liners								
	Straight-through	4.0	6.2	92.1	1150	5/pk	8003-0151	8003-0101
	Straight, wool	4.0	6.2	92.1	1100	5/pk	8003-0160	8003-0106
	Straight with bottom restriction	4.0	6.2	92.1	1100	5/pk	8003-0166	8003-0111

(Continued)

Products highlighted in gray are coming soon.

Liners for AutoSystem, AutoSystem XL, Clarus Systems

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Direct Liners							
 Gooseneck, drilled hole on top, wool	4.0	6.2	92.1		5/pk	8003-0155	
Other Liners							
 Packed column, straight	3.0	6.2	112	800	5/pk	8003-0163	8003-0108
 Programmable on-column, hour glass	2.2	4.0	16		5/pk		8003-0109*
 PTV, 0.25 mm ID restriction, recessed gooseneck	1.0	2.0	88	70	5/pk	8003-0154	8003-0104

*P/N 8003-0109 is not deactivated

Liner O-rings

Description	Unit	Part No.
Non-stick fluoroelastomer O-ring	10/pk	8010-0401
Non-stick fluoroelastomer O-ring, PSS Injector	10/pk	8003-0202
Silicone O-ring	10/pk	8003-0203
Graphite O-ring, PSS Injector	10/pk	8003-0204
Graphite O-ring	10/pk	8003-0205



Capillary Column Ferrules

Model	Fitting Size (in.)	Ferrule ID (mm)	Column ID (mm)	Hole	Unit	85% Vespel/ 15% Graphite	Graphite	Vespel
AutoSystem, Autosystem XL, Clarus	1/16	0.3	0.18 mm ID or smaller	1	10/pk			8010-0306
	1/16	0.4	0.25	1	10/pk	8010-0310	8010-0301	8010-0307
	1/16	0.4	0.25	2	10/pk	8010-0312		
	1/16	0.5	0.32	1	10/pk	8010-0311	8010-0302	8010-0308
	1/16	0.5	0.32	2	10/pk	8003-0216	8010-0303	
	1/16	0.8	0.53	1	10/pk	8010-0313	8010-0304	8010-0309

Model	Fitting Size (in.)	Ferrule ID (in.)	Column OD (in.)	Hole	Unit	85% Vespel/ 15% Graphite	Graphite	Vespel
AutoSystem, Autosystem XL, Clarus	1/4	1/4	1/4	1	10/pk	8010-0314	8010-0305	8003-0223
	1/8	1/8	1/8	1	10/pk	8003-0219	8003-0212	8003-0222
	1/16	1/16	1/16	1	10/pk	8010-0315	8003-0211	8003-0221

Column Nuts

Description	Unit	Part No.
Column nut, 1/16 in.	2/pk	8003-0311

Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Needle Gauge/Length (mm)/Tip	Syringe	Replacement Needle and Plunger Repair Kit
AutoSystem, Autosystem XL, Clarus	0.5	Removable needle	23/70/cone tip	8003-0005	8003-0006
AutoSystem, Autosystem XL, Clarus		Removable needle	26/70/bevelled cone tip	8003-0007	8003-0008
AutoSystem, Autosystem XL, Clarus	5	Fixed needle	23/70/cone tip	8003-0001	
AutoSystem, Autosystem XL, Clarus		Fixed needle, gas tight	23/70/cone tip	8003-0002	
AutoSystem, Autosystem XL, Clarus		Fixed needle	26/70/cone tip	8003-0003	
AutoSystem, Autosystem XL, Clarus		Fixed needle	23/70/cone tip	8003-0004	

Looking for Inlet Septa or Autosampler Vials?







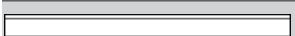
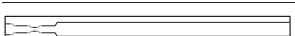
Please see page 29 for Inlet Septa and page 34 for Vials.



CrossLab Supplies for Shimadzu GC Systems

Products highlighted in gray are coming soon.











Liners for 2014 Systems

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Splitless Liners							
 Single taper, wool	3.5	5.0	95		5/pk	8001-0160	
 Double taper, drilled hole near top	3.5	5.0	95		5/pk	8001-0158	
 Double taper, drilled hole near bottom	3.5	5.0	95		5/pk	8001-0159	
 Straight-through	2.6	5.0	95	500	5/pk	8001-0151	8001-0101
Split Liners							
 Straight with middle restriction	3.5	5.0	95	800	5/pk	8001-0156	8001-0106
 Straight with middle restriction, wool	3.5	5.0	95	800	5/pk	8001-0157	
 Straight-through	3.4	5.0	95	860	5/pk	8001-0153	8001-0103
Direct Liners							
 For 0.53 mm ID column	2.6	5.0	95	450	5/pk	8001-0152	8001-0102



Products highlighted in gray are coming soon.



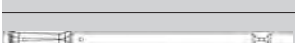



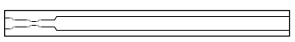
Liners for 2010 and 2010 Plus Systems

Description	ID (mm)	OD (mm)	Length (mm)	Volume (μL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Split/ Splitless Liners							
 Single taper	3.4	5.0	95		5/pk	8001-0154	8001-0104
Splitless Liners							
 Single taper, wool	3.5	5.0	95		5/pk	8001-0160	
 Double taper, drilled hole near top	3.5	5.0	95		5/pk	8001-0158	
 Double taper, drilled hole near bottom	3.5	5.0	95		5/pk	8001-0159	
 Straight-through	2.6	5.0	95	500	5/pk	8001-0151	8001-0101
Split Liners							
 Straight-through	3.4	5.0	95	860	5/pk	8001-0153	8001-0103
 Straight with middle restriction	3.5	5.0	95	800	5/pk	8001-0156	8001-0106
 Straight with middle restriction, wool	3.5	5.0	95	800	5/pk	8001-0157	
Other Liners							
 PTV	1.25	3.5	95	100	5/pk	8001-0163	
 SPME or Purge and Trap, straight	0.75	5.0	95	50	5/pk	8001-0162	




Products highlighted in gray are coming soon.

Liners for 17A Systems

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Splitless Liners							
 Single taper, wool	3.5	5.0	95		5/pk	8001-0160	
 Double taper, drilled hole near top	3.5	5.0	95		5/pk	8001-0158	
 Double taper, drilled hole near bottom	3.5	5.0	95		5/pk	8001-0159	
 Straight-through	2.6	5.0	95	500	5/pk	8001-0151	8001-0101
Split Liners							
 Straight with middle restriction, wool	3.5	5.0	95	800	5/pk	8001-0157	
 Straight-through	3.4	5.0	95	860	5/pk	8001-0153	8001-0103
Direct Liners							
 For 0.53 mm ID column	2.6	5.0	95	450	5/pk	8001-0152	8001-0102

Liners for 14 Systems

Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Split/Splitless Liners							
 2.0 mm middle gooseneck	3.4	5.0	99	850	5/pk	8001-0155	8001-0105

Liner O-rings

Description	Unit	Part No.
Non-stick fluoroelastomer O-ring	10/pk	8001-0201
Graphite O-ring, split	10/pk	8001-0202
Graphite O-ring, splitless	10/pk	8001-0203



Graphite O-rings

Capillary Column Ferrules

Model	Fitting Size (in.)	Ferrule ID (mm)	Column ID (mm)	Hole	Unit	85% Vespel/ 15% Graphite	Graphite
2010, 2010 Plus, 2014, 17A, 14A	1/16	0.4	0.25	1	10/pk		8001-0211
	1/16	0.5	0.32	1	10/pk		8001-0212
	1/16	0.8	0.53	1	10/pk		8001-0213
QP5000/5050 Standard MS	1/16	0.3	0.18 mm ID or smaller	1	10/pk	8001-0224	
	1/16	0.4	0.25	1	10/pk	8001-0221	
	1/16	0.5	0.32	1	10/pk	8001-0222	
	1/16	0.8	0.53	1	10/pk	8001-0223	
	1/16	0.4	0.25	1	10/pk	8010-0310	
QP2010	1/16	0.4	0.25	1	10/pk	8010-0310	
	1/16	0.4	0.25	2	10/pk	8010-0312	
	1/16	0.5	0.32	1	10/pk	8010-0311	
	1/16	0.8	0.53	1	10/pk	8010-0313	
Model	Fitting Size (in.)	Ferrule ID (in.)	Column OD (in.)	Hole	Unit	85% Vespel/ 15% Graphite	Graphite
QP5000/5050 Standard MS	1/4	1/4	1/4	1	10/pk	8010-0314	
QP5000/5050 Wide Bore MS	1/16	1/16	1/16	1	10/pk	8010-0315	
QP2010	1/16	1/16	1/16	1	10/pk	8010-0315	
17A	5 mm	5 mm	5 mm OD	1	10/pk	8001-0214	



Column Nuts

Description	Unit	Part No.
Column nut, slotted, 6-sided	2/pk	8001-0311
Column nut, no slot, 6-sided	2/pk	8001-0312

Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Needle Gauge/Length (mm)/Tip	Syringe	Replacement Needle
AOC-14, AOC-17, AOC-20	5	Fixed needle	23/42/cone tip	8001-0001	
AOC-14, AOC-17, AOC-20	10	Removable needle	23/42/cone tip	8001-0004	8001-0005, 2/pk
AOC-14, AOC-17, AOC-20		Removable needle	26/42/cone tip	8001-0006	8001-0007, 2/pk
AOC-14, AOC-17, AOC-20	50	Fixed needle	23/42/cone tip	8001-0002	
AOC-14, AOC-17, AOC-20	250	Fixed needle, gas tight	23/42/cone tip	8001-0003	



Looking for Inlet Septa or Autosampler Vials?

Please see page 29 for Inlet Septa and page 34 for Vials.



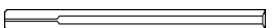





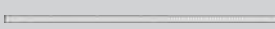
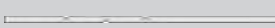




CrossLab Supplies for Thermo Scientific GC Systems

Products highlighted in gray are coming soon.

Liners for Trace, Focus Systems

	Description	ID (mm)	OD (mm)	Length (mm)	Volume (µL)	Unit	Agilent Ultra Inert Deactivation	Agilent Original Deactivation
Splitless Liners								
	Single taper	5.0	8.0	105	1750	5/pk	8002-0153	8002-0103
	Straight	3.0	8.0	105	750	5/pk	8002-0152	8002-0102
	Single taper	3.0	8.0	105		5/pk	8002-0154	8002-0104
Split Liners								
	Straight	5.0	8.0	105	2000	5/pk	8002-0151	8002-0101
PTV Liners								
	Straight	2.0	2.75	120	375	5/pk	8002-0156*	8002-0106*
	Straight with bottom restriction	2.0	2.75	120	375	5/pk	8002-0157	8002-0107
	6 baffles	2.0	2.75	120		5/pk	8002-0160*	
	Straight	1.75	2.75	120	300	5/pk	8002-0155	8002-0105
	Straight	1.0	2.75	120	90	5/pk	8002-0161	
	3 baffles	1.0	2.75	120		5/pk	8002-0159*	

*Use in Trace systems only

Liner O-rings

Description	Unit	Part No.
Non-stick fluoroelastomer O-ring, sintered liner	10/pk	8002-0201
Non-stick fluoroelastomer O-ring	10/pk	8010-0401
Graphite O-ring, 8 mm OD	2/pk	8002-0203
Graphite O-ring, PTV	2/pk	8002-0204

Capillary Column Ferrules

Model	Fitting Size (in.)	Ferrule ID (mm)	Column ID (mm)	Hole	Unit	85% Vespel/ 15% Graphite	Graphite
Trace/Focus Injectors/Detectors (not for GC/MS Interface)	M4	0.3	0.18 mm ID or smaller	1	10/pk		8002-0211
	M4	0.4	0.25	1	10/pk		8002-0212
	M4	0.5	0.32	1	10/pk		8002-0213
	M4	0.8	0.53	1	10/pk		8002-0214
Injectors/Detectors	1/16	0.4	0.25	1	10/pk	8002-0220	8002-0215
	1/16	0.5	0.32	1	10/pk	8002-0221	8002-0216
	1/16	0.8	0.53	1	10/pk	8002-0222	8002-0217
Any GC/MS Interface	1/16	0.4	0.25	1	10/pk	8010-0310	
	1/16	0.5	0.32	1	10/pk	8010-0311	



Column Nuts

Description	Unit	Part No.
Column nut, stainless steel, split/splitless injector	2/pk	8002-0311
Column nut, brass	2/pk	8002-0312

Autosampler Syringes, 1/pk

Model	Volume (µL)	Description	Needle Gauge/Length (mm)/Tip	Syringe	Replacement Plunger or Needle
TriPlus, AS3000	0.5	Plunger-in-needle	23/50/cone tip	8010-0355	8010-0367*
TriPlus	5	Fixed needle	26/50/cone tip	8010-0353	
TriPlus, AS3000, AS2000, AS200, AS800	10	Fixed needle	23/50/cone tip	8010-0351	
		Fixed needle	26/50/cone tip	8010-0352	
		Fixed needle	25/50/cone tip	8002-0003	
TriPlus, AS2000		Fixed needle	23/80/cone tip	8002-0002	
		Fixed needle	26/80/cone tip	8002-0001	
TriPlus, AS2000, AS200, AS800	100	Fixed needle, gas tight	23/50/cone tip	8010-0354	8010-0368**
TriPlus, AS2000		Removable needle, gas tight	23/50/side hole tip	8002-0004	8002-0005***

*Needle and plunger repair kit

**Replacement plunger

***Replacement needle



Looking for Inlet Septa or Autosampler Vials?

Please see page 29 for Inlet Septa and page 34 for Vials.

CrossLab CTC Autosampler Syringes

Agilent's CrossLab portfolio includes a variety of syringes compatible with CTC Analytics GC PAL and CombiPAL systems.

- Syringe capacities from 0.5 μL to 2.5 mL
- Fixed and removable needles
- Several needle tip styles to suit your application requirements
- High temperature syringes for headspace application with temperatures up to 150°C
- PTFE plunger seal option for smooth, leak-free operation
- Syringe specifications are matched to CTC holders to ensure proper fit and reliable functioning



Autosampler Syringes for CTC CombiPAL and GC PAL, 1/pk

Volume (μL)	Description	Needle Gauge/Length (mm)/Tip	Syringe	Replacement Plunger or Needle
0.5	Plunger-in-needle	23/50/cone tip	8010-0355	8010-0367*
5	Fixed needle	26/50/cone tip	8010-0356	
	Fixed needle	26/50/cone tip	8010-0353	
10	Fixed needle	23/50/cone tip	8010-0351	
	Fixed needle	25/50/cone tip	8002-0003	
	Fixed needle	26/50/cone tip	8010-0352	
	Fixed needle, gas tight	26/50/cone tip	8010-0357	8010-0359**
	Fixed needle	26/50/bevel tip	8010-0358	
25	Fixed needle	26/50/cone tip	8010-0360	
100	Fixed needle, gas tight	23/50/cone tip	8010-0354	
	Removable needle, gas tight	23/50/side hole tip	8002-0004	8002-0005***
	Fixed needle	26/50/cone tip	8010-0361	
250	Fixed needle, gas tight	26/50/cone tip	8010-0362	

Volume (mL)	Description	Needle Gauge/Length (mm)/Tip	Syringe	Replacement Plunger
1	Fixed needle, gas tight, headspace	23/56/side hole tip	8010-0363	8010-0365
2.5	Fixed needle, gas tight, headspace	23/56/side hole tip	8010-0364	8010-0366

*Needle and plunger repair kit

**Replacement plunger

***Replacement needle

CrossLab Inlet Septa

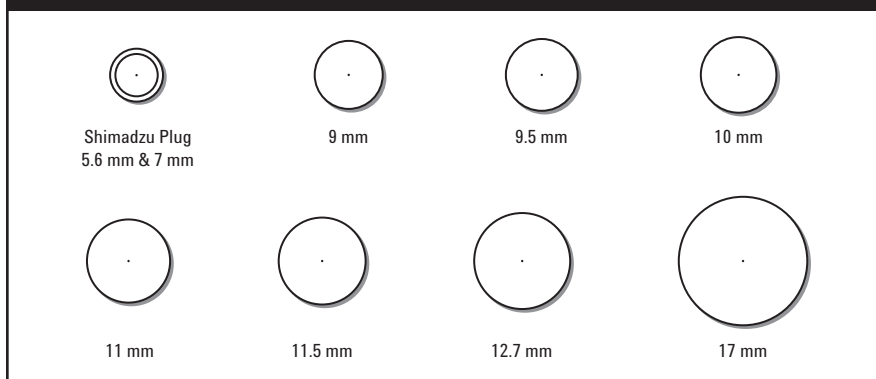


CrossLab Inlet Septa Selection Guide

GC Manufacturer	Instrument Model	Diameter (mm)	Diameter (in.)
Bruker, Varian*	1177 Split/Splitless Injector	9	
	1078/1079 Programmable Temperature Vaporizing Injector	11.5	
	1093 Cold On-Column Injector	11	7/16
	1075/1077 Split/Splitless Injector	11	7/16
	1061 Packed/0.53 mm Capillary Column Flash Vaporization Injector	9.5	3/8
	1041 Packed/Wide Bore On-Column Injector	9.5	3/8
PerkinElmer	Clarus System	11	7/16
	AutoSystem	11	7/16
	AutoSystem XL	11	7/16
	8000 Series	11	7/16
	Sigma Series	11	7/16
Thermo Scientific Trace GC Ultra and Focus GC	Split/Splitless Injector	17	
	Large Volume Splitless Injector	9	
	Programmable Temperature Vaporizing Injector	12.7	1/2
	Purged Packed Column Injector	11	
	Packed Column Injector	11	
Thermo Scientific Finnigan	Trace 2000 Series	9.5	
	9001 GC	9.5	
Shimadzu	All Models	Shimadzu Plug	

*Formerly Varian GC systems, now Bruker products

Septa Diameters



CrossLab Non-Stick Bleed Temperature Optimized (BTO) Inlet Septa

- Extended temperature range, lowest bleed
- Maximum injection port temperature 400°C
- Plasma treatment eliminates sticking in the injection port
- Pre-conditioned; ready to use
- Blister packaging maintains cleanliness and convenience
- Ideal for use with low-bleed, "Mass Spec" capillary columns



BTO septa, 8010-0223, 8010-0224

Non-Stick Bleed and Temperature Optimized (BTO) Septa

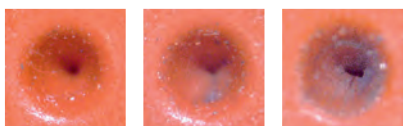
Description	50/pk	100/pk
9 mm, CenterGuide	8010-0217	8010-0218
9.5 mm	8010-0219	8010-0220
10 mm	8010-0221	8010-0222
11 mm, CenterGuide	8010-0223	8010-0224
11.5 mm, CenterGuide	8010-0225	8010-0226
Shimadzu plug	8010-0231	8010-0232
Description	24/pk	48/pk
12.7 mm, CenterGuide	8010-0227	8010-0228
17 mm, CenterGuide	8010-0229	8010-0230

Comparison of Coring, With and Without CenterGuide (30x magnification)



High-Temperature Septa without CenterGuide

Major coring before 100 autoinjections



CrossLab BTO Septa with CenterGuide

Very little coring, even after 700 autoinjections

CrossLab Non-Stick Advanced Green Inlet Septa

- True long-life, high temperature green septa
- More injections per septum
- Plasma treatment eliminates sticking in the injection port
- Maximum injection port temperature 350°C
- High-performance alternative to competitors' "green" septa
- Blister packaging for cleanliness and convenience



Advanced green septa,
8010-0207, 8010-0208

Non-Stick Advanced Green Septa

Description	50/pk	100/pk
9 mm, CenterGuide	8010-0201	8010-0202
9.5 mm	8010-0203	8010-0204
10 mm	8010-0205	8010-0206
11 mm, CenterGuide	8010-0207	8010-0208
11.5 mm, CenterGuide	8010-0209	8010-0210
Shimadzu plug	8010-0215	8010-0216
Description	24/pk	48/pk
12.7 mm, CenterGuide	8010-0211	8010-0212
17 mm, CenterGuide	8010-0213	8010-0214



CrossLab Non-Stick Long Life Inlet Septa

- Preferred septa for autosamplers
- Pre-pierced for extended life and reduced coring
- Ideal for overnight runs
- Up to 400 injections per septum
- Plasma treatment eliminates sticking
- Maximum injection port temperature 350°C
- Soft, 45 durometer, easy on autosampler needles
- Blister packaging for cleanliness and convenience



Long life septa, 8010-0239, 8010-0240

Non-Stick Long-Life Septa

Description	50/pk	100/pk
9 mm, CenterGuide	8010-0233	8010-0234
11 mm, CenterGuide	8010-0239	8010-0240
11.5 mm, CenterGuide	8010-0241	8010-0242
Description	24/pk	48/pk
12.7 mm, CenterGuide	8010-0243	8010-0244
17 mm, CenterGuide	8010-0245	8010-0246

CrossLab Gray General Purpose Inlet Septa

Agilent's general purpose septa are made from an enhanced injection-molded silicone rubber. The septa material is specified to withstand over 200 automatic injections at an injection port temperature of 350°C.

General Purpose Septa

Description	50/pk	100/pk
9 mm	8010-0249	8010-0250
9.5 mm	8010-0251	8010-0252
10 mm	8010-0253	8010-0254
11 mm	8010-0255	8010-0256
11.5 mm	8010-0257	8010-0258
12.7 mm	8010-0259	8010-0260
17 mm	8010-0261	8010-0262
Shimadzu plug	8010-0263	8010-0264



CrossLab general purpose inlet septa, 8010-0257

Septa Troubleshooting

Symptom

Possible Causes

Remedy

Extra Peaks/Humps



Septum bleed

Turn off injector heater. If extra peaks disappear, use septum specified for higher temperature or analyze at lower inlet temperature.

Baseline Change After Large Peak



Large leak at septum during injection and for a short time thereafter (common with large diameter needles)

Replace septum and use smaller diameter needles.

Retention Times Prolonged



Carrier gas leaks at septum or column connection

Check for leaks. Replace septum or tighten connections if necessary.

CrossLab Vials and Closures

CrossLab Vial Compatibility						
Manufacturer	Autosampler	8 mm Screw Top	9 mm Screw Top	15 x 45 mm, 4 mL	11 mm Crimp Top	Headspace
Bruker, Varian*	CP-8410		◆	◆	◆	
	8034/8035/8100/8200	◆	◆		◆	
	9095/9100	◆	◆		◆	
	Prostar 400/410/420	◆	◆		◆	
	Prostar 430	◆	◆		◆	
	Genesis					◆
PerkinElmer	Autosystem GC/XL/AS-2000	◆	◆	◆	◆	
	Clarus 500/600		◆		◆	
	Integral 4000	◆	◆		◆	
	TurboMatrix 40/110					◆
	ISS-100/200	◆	◆		◆	
	HS16/40					◆
	LC Plus	◆	◆	◆		
	LC 600 42 vial tray		◆			
Shimadzu	AOC 88/9	◆	◆		◆	
	AOC-5000	◆	◆		◆	Magnetic
	AOC-20		◆	◆	◆	
	AOC14/1400	◆	◆		◆	
	HSS-2B/4B					◆
	SIL-6A/6B/9A	With flange				
	SIL-10A, SIL-10Ai, SIL-10AxL	◆	◆			
	SIL-HT/10ADVP	◆	◆		◆	
	LC 2010	◆	◆		◆	
Thermo Scientific	SURVEYOR LC	◆	◆		◆	
	AS 3000/TRACE GC		◆		◆	
	TriPlus		◆		◆	
	A-200S/AS 150/800/8000	◆	◆		◆	
CTC Analytics	CombiPal		◆	◆	◆	Magnetic
Waters	Acquity	◆	◆		◆	
	Alliance 2690	◆	◆			
	CapLC	◆	◆		◆	
	WISP			◆		
	717 Plus				◆	

*Formerly Varian GC systems, now Bruker products



CrossLab Vial Identification Chart and Actual Fill Volumes

Wide Opening Screw Top Vials (9 mm)	Standard Opening Screw Top Vials (8 mm)	Wide Opening Crimp Top Vials (11 mm)
<p>32 mm x 12 mm</p>		
<p>8010-0014 8010-0018 8010-0008</p>	<p>8010-0010</p>	<p>8010-0001 8010-0004 8010-0006</p>

Wide Opening Snap Top Vials	Micro Vials	Polypropylene Vials
<p>8010-0023 8010-0028</p>	<p>8010-0153 8010-0154 8010-0155</p>	<p>8010-0158 8010-0160 Glass Insert 8010-0161 8010-0162 Glass Insert 8010-0159</p>

Headspace Vials

<p>True scale: 45 mm x 22 mm</p>	<p>True scale: 75 mm x 22 mm</p>
<p>8010-0029 8010-0030</p>	<p>8010-0033 8010-0034 8010-0152 8010-0037 8010-0038 8010-0041 8010-0042</p>

Specialty Vials	Inserts for Wide Opening Vials (11 mm & 9 mm)	Inserts for Narrow Opening Vials (8 mm)
	<p>31 mm</p>	
<p>8010-0151 8010-0020 8010-0022</p>	<p>8010-0131 8010-0132 8010-0136</p>	<p>8010-0124 8010-0125 8010-0126</p>

Septum Selection Guide

Septum Material	Compatible with	Incompatible with	Resealability	Max. Temperature
Red (Natural) Rubber	ACN, acetone, DMF, alcohols, diethylamine, DMSO, phenols	Chlorinated solvents, aromatics, hydrocarbons, carbon disulfide	Good	< 70°C
Butyl Rubber	ACN, acetone, DMF, alcohols, diethylamine, DMSO, phenols	Chlorinated solvents, aromatics, hydrocarbons, carbon disulfide	Good	< 100°C
PTFE-lined Red (Natural) Rubber	PTFE resistance until punctured, then septa or liner will have compatibility of rubber		Good	< 100°C
Silicone	Alcohol, acetone, ACN, ether, DMF, DMSO, hexane	THF, benzene chloroform, pyridine, toluene, heptane	Better	< 260°C
PTFE-lined Silicone	PTFE resistance until punctured, then septa will have compatibility of silicone		Better	< 260°C



CrossLab Screw Top Vials and Closures

Combine the excellent autosampler handling of a crimp cap profile with the ease of a screw cap. CrossLab screw caps and precision fit septa give a secure seal with microvolume inserts.

2 mL Wide Opening (9 mm) Screw Top Vials and Closures

- 2 mL, 12 x 32 mm, 9 mm diameter
- Available in unique packaging designed to reduce vial breakage
- Wider opening prevents syringe problems
- Unique thread design for consistently secure seal
- Precision-formed neck for optimal robotic arm handling
- Optional ceramic write-on spot with fill marks

2 mL Wide Opening (9 mm) Screw Top Glass Vials

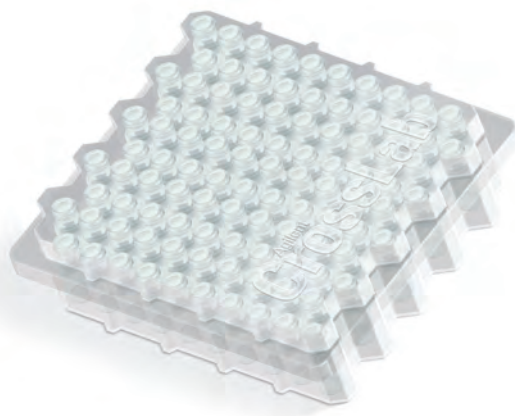
Description	100/pk	1000/cs
Clear	8010-0015	
Clear, write-on spot	8010-0014	8010-0175
Amber	8010-0017	
Amber, write-on spot	8010-0016	8010-0176
Screw Top Vials with Fixed Inserts		
Clear, 300 μ L insert volume	8010-0008	
Amber, 300 μ L insert volume	8010-0009	



Wide opening screw top vials, 8010-0015



Wide opening screw top vials with write-on spot, 8010-0014



Screw Caps for Wide Opening (9 mm) Vials

Color	Septa Type	100/pk	1000/cs
Blue	PTFE/silicone	8010-0086	
	PTFE/silicone/PTFE	8010-0087	
	Pre-slit PTFE/silicone	8010-0078	
	Bonded PTFE/silicone	8010-0077	
	PTFE lined	8010-0080	
	Open top, no septa	8010-0079	
Red	PTFE/silicone	8010-0088	
	PTFE/silicone/PTFE	8010-0089	
	Pre-slit PTFE/silicone	8010-0082	
	Bonded PTFE/silicone	8010-0081	
	Open top, no septa	8010-0083	
Orange	PTFE/silicone	8010-0084	8010-0186
	PTFE/silicone/PTFE	8010-0085	8010-0187
	Pre-slit PTFE/silicone	8010-0075	
	Bonded PTFE/silicone	8010-0074	
	Open top, no septa	8010-0076	



Screw caps for wide opening vials, 8010-0084

Septa for Wide Opening (9 mm) Screw Caps

Septa Type	Color	100/pk	1000/cs
PTFE/red silicone	Ivory	8010-0093	
PTFE/white silicone/red PTFE	Red	8010-0091	8010-0188
Pre-slit PTFE/white silicone	Blue	8010-0094	
PTFE/white silicone	Red	8010-0092	

Screw Top Vial Convenience Packs

Vial Type	Septa Type	Cap Color	100/pk
Clear, write-on spot	PTFE/silicone	Orange	8010-0198
Amber, write-on spot	PTFE/silicone	Orange	8010-0199

2 mL Standard Opening (8 mm) Screw Top Vials and Closures

- 2 mL, 12 x 32 mm, 8 mm diameter
- 8-425 thread design
- Optional ceramic write-on spot with fill marks

2 mL Standard Opening (8 mm) Screw Top Glass Vials

Description	100/pk
Clear	8010-0011
Clear, write-on spot	8010-0010
Amber	8010-0013
Amber, write-on spot	8010-0012



Standard opening screw top vials,
8010-0011



Screw caps for standard opening vials,
8010-0056

Screw Caps for Standard Opening (8 mm) Vials

Color	Septa Type	100/pk
Blue	PTFE/silicone	8010-0061
	Pre-slit PTFE/silicone	8010-0062
	PTFE/silicone/PTFE	8010-0063
	PTFE/butyl	8010-0064
	Open top, no septa	8010-0065
Red	PTFE/silicone	8010-0066
	Pre-slit PTFE/silicone	8010-0067
	PTFE/silicone/PTFE	8010-0068
	PTFE/butyl	8010-0069
	Open top, no septa	8010-0070
Orange	PTFE/silicone	8010-0056
	Pre-slit PTFE/silicone	8010-0057
	PTFE/silicone/PTFE	8010-0058
	PTFE/butyl	8010-0059
	Open top, no septa	8010-0060
Black	PTFE/silicone	8010-0054
	Open top, no septa	8010-0055
Flanged Caps (Compatible with Shimadzu Autosamplers)		
Orange	Flanged, PTFE/silicone	8010-0141
	Flanged, pre-slit PTFE/silicone	8010-0142
	Flanged, no septa	8010-0166

Septa for Standard Opening (8 mm) Vials

Septa Type	Unit	Part No.
Red PTFE/white silicone/red PTFE	100/pk	8010-0071
Red PTFE/white silicone	100/pk	8010-0072
PTFE/butyl	500/pk	8010-0073

4 mL (13 mm) Screw Top Vials and Closures

- 4 mL, 15 x 45 mm
- Compatible with WISP 48 style autosamplers
- Precision formed screw threads (13 x 425) for consistently secure seal
- Can be used as wash, waste or storage vials

4 mL (13 mm) Screw Top Glass Vials

Description	100/pk
Clear	8010-0020
Amber	8010-0021

Screw Caps for 4 mL (13 mm) Vials

Color	Septa Type	100/pk
Black	Red PTFE/silicone	8010-0095
	Open top, no septa	8010-0096

Septa for 4 mL (13 mm) Vials

Septa Type	100/pk
Red PTFE/ white silicone	8010-0098
White PTFE	8010-0099



Screw caps and septa

6 mL (16 mm) Screw Top Vials and Closures

6 mL (16 mm) Screw Top Glass Vials

Description	100/pk
Clear	8010-0022



Screw Caps for 6 mL (16 mm) Vials

Screw Caps for 6 mL (16 mm) Vials

Septa Type	100/pk
PTFE/silicone	8010-0101
Pre-slit PTFE/silicone	8010-0102
Open top, no septa	8010-0100

CrossLab Crimp Top Vials and Closures

The wide opening crimp cap provides a larger target area for improved autosampler needle accuracy. Select from a variety of cap colors and septa. Whatever your crimp top vial needs, Agilent has what you are looking for.

2 mL (11 mm) Crimp Top Vials and Closures

- 2 mL, 12 x 32 mm
- Available in unique packaging designed to reduce vial breakage
- Tightly controlled crown for improved crimping
- Precision-formed neck for improved autosampler handling
- Rigorous quality assurance provides dimensional accuracy from lot-to-lot
- Optional ceramic write-on spot with fill marks

2 mL (11 mm) Crimp Top Glass Vials

Description	100/pk	1000/cs
Clear	8010-0002	
Clear, write-on spot	8010-0001	8010-0170
Amber, write-on	8010-0003	8010-0172
Crimp Top Vials with Fixed Inserts		
Clear, 300 µL insert volume	8010-0006	
Amber, 300 µL insert volume	8010-0007	



Crimp top glass vials, 8010-0001



Tips & Tools

Red rubber septa have a tendency to cause needle sticking during sampling and are more likely to core. Agilent recommends using silicone septa as a higher quality alternative to prevent contamination and issues related to septa coring.



Magnetic crimp caps, 8010-0052

Crimp Caps with 11 mm Septa

Cap Color	Septa Type	Unit	Part No.
Silver aluminum	PTFE/silicone/PTFE	100/pk	8010-0049
		1000/cs	8010-0182
	PTFE/silicone	100/pk	8010-0050
		1000/cs	8010-0183
	PTFE/butyl	100/pk	8010-0051
	Thin membrane rubber septa	25/pk	8010-0053
	PTFE/red rubber septa	100/pk	8010-0045
1000/cs		8010-0181	
Blue aluminum	PTFE/red rubber septa	100/pk	8010-0046
Green aluminum	PTFE/red rubber septa	100/pk	8010-0047
Red aluminum	PTFE/red rubber septa	100/pk	8010-0048
Gold aluminum	Magnetic	100/pk	8010-0052

Crimp Top Vial Convenience Packs

Vial Type	Septa Type	Cap Color	100/pk
Clear, write-on spot	PTFE/silicone	Silver aluminum	8010-0195
Amber, write-on spot	PTFE/silicone	Silver aluminum	8010-0196

Crimp Top Micro Vials

Agilent offers a selection of crimp top micro vials designed for a variety of autosamplers, including HTS and HTC PAL systems, to cope with today's high-throughput LC/MS demands. Additionally, Agilent CrossLab crimp top micro vials work seamlessly with CombiPAL and GC PAL magnetic needle guides and barcode readers.

Crimp Top Micro Vials

Description	Volume	Unit	Part No.
Amber, flat bottom	0.8 mL	1000/pk	8010-0153
Clear, tapered bottom	0.1 mL	500/pk	8010-0154
Clear, round bottom	0.3 mL	500/pk	8010-0155

For CrossLab CTC Autosampler Syringes, see page 28.



Crimp top micro vial, 0.8 mL, 8010-0153



Tips & Tools

Agilent offers ergonomic manual crimpers and decappers, designed to significantly reduce hand strain. Electronic versions are also available, featuring a longer life battery designed for quick, powerful use. For more information please visit

www.agilent.com/chem/crimper



CrossLab Snap Top Vials and Closures

Snap top vials and caps are the simple, efficient way to a secure seal without crimping. It's as easy as push-on, pull-off. Crimp caps can also be used with wide opening snap top vials.

Note: Snap cap vials cannot be pressurized.

2 mL (11 mm) Snap Top Vials and Closures

- 2 mL, 12 x 32 mm
- Use with any 11 mm snap or crimp cap
- Available in unique packaging designed to reduce vial breakage
- Precision-formed neck improves autosampler handling
- Optional ceramic write-on spot



Snap top vials with write-on spot, 8010-0025

2 mL (11 mm) Snap Top Glass Vials

Description	100/pk	1000/cs
Clear	8010-0024	
Clear, write-on spot	8010-0023	8010-0177
Amber	8010-0026	
Amber, write-on spot	8010-0025	8010-0178

Snap Caps with 11 mm Septa

Cap Color	Septa Type	100/pk	1000/cs
Clear	PTFE/red silicone	8010-0104	
	PTFE/silicone/PTFE	8010-0105	
	Pre-slit PTFE/white silicone	8010-0106	
	Clear polyethylene membrane	8010-0107	
Blue	PTFE/red silicone	8010-0108	
	PTFE/white silicone	8010-0112	
Green	PTFE/red silicone	8010-0109	
Orange	PTFE/red silicone	8010-0103	8010-0189
	PTFE/white silicone	8010-0111	8010-0190
	Pre-slit PTFE/white silicone	8010-0113	
Red	PTFE/red silicone	8010-0110	
Polyurethane		8010-0115	



Snap caps with 11 mm red silicone septa,
8010-0103

Snap Top Vial Convenience Packs

Vial Type	Septa Type	Cap Color	100/pk
Clear, write-on spot	PTFE/silicone	Orange	8010-0200
Amber, write-on spot	PTFE/silicone	Orange	8010-0411



Polypropylene vials



Polypropylene vial with glass insert, 8010-0160

CrossLab Polypropylene Vials

Wide opening 12 x 32 mm vials are manufactured from virgin polypropylene, meeting the requirements of 21 CFR 177.1520. Polypropylene is chemically resistant and the material of choice for pH sensitive samples, sodium or heavy metals analysis. Polypropylene vials are translucent and can be used with crimp or snap caps.

Polypropylene Vials

Description	Recommended Fill Volume	Max Fill Volume	100/pk	1000/cs
Polypropylene, crimp/snap top	250 µL	440 µL	8010-0158	8010-0193
Polypropylene, crimp/snap top	0.7 mL	1 mL	8010-0159	
Polypropylene, screw top	250 µL	440 µL	8010-0161	8010-0194
Polypropylene with glass insert, crimp/snap top	250 µL	350 µL	8010-0160	
Polypropylene with glass insert, screw top	250 µL	350 µL	8010-0162	



Tips & Tools

For economical and effective microsampling, choose the polypropylene vial with molded glass flanged insert. Its polypropylene body has a glass flanged insert molded to the inside, so the sample comes in contact only with the high quality glass insert and the septum.

Polypropylene Solvent Compatibility

Solvent	Polypropylene
Acetone	Little damage
Acetonitrile	Not recommended
Benzene	Some effect
Butanol-2	No damage
Carbon tetrachloride	Some effect
Chloroform	Some effect
Cyclohexane	Not recommended
Cyclopentane	Immediate damage
Ethanol	Little or no damage
Ethyl acetate	Immediate damage
Heptane	Some effect
Hexane	Some effect
Isopropanol	No damage
MTBE	Immediate damage
Methanol	No damage
Methylene Chloride	Not recommended
Propanol-1	No damage
Propanol-2	No damage
Tetrahydrofuran	Some effect
Toluene	Some effect
Water	No damage



Micro-V vial

CrossLab Micro-V Vials

- Wide opening, 1.5 mL vials with low residual volume
- Made from first hydrolytical glass Type 1
- Standard 12 x 32 mm dimension
- Compatible with 11 mm crimp closures

Micro-V Vials

Description	Unit	Screw Top	Crimp Top	Snap Top
Clear	100/pk	8010-0018	8010-0004	8010-0027
Amber	100/pk	8010-0019	8010-0005	8010-0028



Microvolume inserts

CrossLab Microvolume Inserts

To meet your microsampling needs, Agilent has a variety of microvolume inserts with capacities and designs that can transform our vials from full-capacity to limited volume with one simple step.

Microvolume Inserts for 8 mm Screw Top Vials

Description	Recommended Fill Volume	Max Fill Volume	Unit	Part No.
Glass conical insert with polymer feet	150 μ L	200 μ L	100/pk	8010-0124
Glass pulled-point insert	150 μ L	200 μ L	100/pk	8010-0125
Flat bottom insert	200 μ L	220 μ L	100/pk	8010-0126



250 μ L pulled-point glass insert, 8010-0132

Microvolume Inserts for 11 mm Crimp Top or 9 mm Screw Top Vials

Description	Recommended Fill Volume	Max Fill Volume	Unit	Part No.
Conical insert with polymer feet	250 μ L	330 μ L	100/pk	8010-0131
Pulled-point insert	250 μ L	350 μ L	100/pk	8010-0132
Flat bottom insert	400 μ L	440 μ L	500/pk	8010-0136



400 μ L glass flat bottom insert, 8010-0136

CrossLab Headspace Vials and Closures

- Choice of crimp or screw top vials
- Beveled top for maximum secure seal
- Choice of a pressure safety release cap at 45 psi
- Available in flat or rounded bottom designs

Headspace Crimp Top Glass Vials

Description	Unit	Flat Bottom	Rounded Bottom
10 mL Headspace Crimp Top Glass Vials			
Clear	100/pk	8010-0029	8010-0030
	1000/cs	8010-0179	
Amber	100/pk	8010-0031	8010-0032
20 mL Headspace Crimp Top Glass Vials			
Clear	100/pk	8010-0033	8010-0034
	1000/cs	8010-0180	
Amber	100/pk	8010-0035	8010-0036

Headspace Screw Top Glass Vials

Description	Unit	Flat Bottom	Rounded Bottom
10 mL Headspace Screw Top Glass Vials			
Clear	100/pk	8010-0037	8010-0038
Amber	100/pk	8010-0039	8010-0040
20 mL Headspace Screw Top Glass Vials			
Clear	100/pk	8010-0041	8010-0042
Amber	100/pk	8010-0043	8010-0044

22 mL Headspace Crimp Top Glass Vials

Description	Unit	Part No.
Clear	100/pk	8010-0152

Use 20 mm crimp caps with 22 mL headspace vials



Headspace crimp top vials, 8010-0029



Headspace crimp top glass vials, 8010-0033



Tips & Tools

Many Agilent CrossLab vials are printed with graduation marks and write-on spots. Barcoding labels are also available for regular temperature and high temperature headspace applications.

6 mL Headspace Crimp Top Glass Vials

Description	Unit	Part No.
Clear	100/pk	8010-0151

Use 20 mm crimp caps with 6 mL headspace vials

Headspace Caps and Septa

Cap Color	Septa Type	100/pk	1000/cs
20 mm Headspace Crimp Caps and Septa			
Silver aluminum	Tan PTFE/silicone	8010-0116	8010-0191
	Gray PTFE/butyl	8010-0117	
	No septa	8010-0120	
Silver aluminum with safety feature	PTFE/butyl	8010-0143	
	PTFE/silicone	8010-0144	
Silver aluminum, magnetic	Tan PTFE/silicone	8010-0165	
Septa only	Gray PTFE/butyl	8010-0121	
	Tan PTFE/silicone	8010-0122	8010-0192
18 mm Headspace Crimp Caps and Septa			
Silver, magnetic	Tan PTFE/silicone	8010-0119	
18 mm Headspace Screw Caps and Septa			
Silver, magnetic	PTFE/silicone	8010-0139	
	PTFE/butyl	8010-0140	



Headspace aluminum crimp caps with PTFE/silicone septa, 8010-0144



Headspace magnetic crimp caps with PTFE/silicone septa, 8010-0119

Headspace Vial Convenience Packs

Vial Type	Septa Type	Cap Color	100/pk
10 mL, clear, flat bottom	PTFE/silicone	Silver aluminum	8010-0412
20 mL, clear, flat bottom	PTFE/silicone	Silver aluminum	8010-0413



Two tried-and-true partners in the fight against rework



Bond Elut – Ensure accurate results right from the start

- Extraction solutions for the widest range of analytes and matrices
- Largest choice of formats and sorbents in the market today
- For over 30 years, Bond Elut has been the most trusted name in SPE

Agilent J&W Ultra Inert Capillary GC columns – Perform trace-level analysis with the utmost confidence

- Sets industry standard for consistent column inertness
- Exceptionally low column bleed
- Lower detection limits and more accurate data for difficult analytes



How to contact Agilent

For the latest information on the complete line of Agilent Technologies columns and supplies:

- Visit our Web site: www.agilent.com/chem
- Contact your local Agilent sales office
- Contact your local Agilent Authorized Distributor



Information, descriptions, and specifications in this publication are subject to change without notice.

© Agilent Technologies, Inc. 2011
Printed in the USA April 21, 2011
5990-7773EN



Agilent Technologies