

# ULTIMATE EFFICIENCY FOR BIOMOLECULE ANALYSIS



## Agilent Bio-inert Capillaries and Fittings

Together Agilent bio-inert capillaries and fittings and the 1260 Infinity II Bio-inert LC system, provide a 100 % metal-free sample flowpath, delivering robust and true bio-inertness, for all of your bioapplications.

- **Reliable analysis of biological samples:** no contact between your sample and metal surfaces, minimizes unwanted surface interactions and leads to optimal sample recovery, peak response, and peak shape. Ideal also for uninterrupted ICP-MS and LC/MS analysis.
- **High robustness:** high salt tolerance (1 M) and wide pH range (1-13, short term 14)
- **Pressure resistance:** up to 600 bar
- **Less metal leaching:** less leaching of heavy metals ions (Fe, Ni, Co etc.) and their adducts to minimize baseline contamination in LC-ICP-MS and LC/MS
- **Fast, easy, and reliable column connection:** PEEK-sleeved stainless steel capillaries with InfinityLab Quick Connect fitting for long-lasting, zero-dead-volume and reusable column connections



**Agilent InfinityLab** is an optimized portfolio of LC instruments, columns, and supplies designed to work together in perfect harmony. Combined with Agilent OpenLAB software and Agilent CrossLab Services, Agilent InfinityLab provides you with end-to-end support to make every day more productive.

## Stainless steel clad PEEK (PK/ST) capillaries union and kits

The novel design of the Agilent bio-inert PK/ST capillaries ensures a 100 % metal-free surface to avoid sample interaction, enhance resistance against corrosion, and minimize leaching of metal ions.

Part Number	Description
G5667-81000	Stainless steel clad PEEK capillary, 0.17 mm id, 105 mm long, with two removable UHP-FF fittings
G5667-81001	Stainless steel clad PEEK capillary, 0.17 mm id, 150 mm long, with two removable UHP-FF fittings
G5667-81002	Stainless steel clad PEEK capillary, 0.17 mm id, 200 mm long, with two removable UHP-FF fittings
G5667-81003	Stainless steel clad PEEK capillary, 0.17 mm id, 300 mm long, with two removable UHP-FF fittings
G5667-81004	Stainless steel clad PEEK capillary, 0.17 mm id, 400 mm long, with two removable UHP-FF fittings
G5667-81005	Stainless steel clad PEEK capillary, 0.17 mm id, 500 mm long, with two removable UHP-FF fittings
5500-1276	Quick Connect stainless steel clad PEEK capillary, 0.17 mm id, 280 mm long (for Quick Connect fitting)
5500-1277	Quick Connect stainless steel clad PEEK capillary, 0.17 mm id, 500 mm long (for Quick Connect fitting)



PK/ST capillary (p/n G5667-81000)



**Agilent Technologies**

## Fittings and union for PK/ST capillaries

The default fitting for PK/ST capillaries is the UHP-FF fitting. For column connections, InfinityLab Quick Connect and Quick Turn fittings are recommended due to their spring-loaded design ensuring zero dead volume.

Part Number	Description
5067-5695	UHP-FF fitting, bio-inert
5067-5966	InfinityLab Quick Turn fitting*
5067-5965	InfinityLab Quick Connect fitting**—for column connections, only usable with Quick Connect capillaries and bio-inert Quick Connect column heat exchanger (G7116–60009)
5067-4741	Bio-inert union
5043-0915	Mounting tool for UHP-FF fitting and Quick Turn fitting
5043-0924	Front ferrule for Quick Connect and Quick Turn fitting

\*Note: InfinityLab Quick Turn fittings (P/N 5067–5966) cannot be used on the bio-inert four-column selection valve (G5639A) due to the large port depth leading to dead volume with the fitting. Instead a UHP-FF fitting should be used on the valve.

\*\*Note: InfinityLab Quick Connect fittings provide reliable, true finger-tight and zero dead volume connections, but need special capillaries with a spring and a PEEK component to function. The bio-inert Quick Connect column heat exchanger also contains the spring and PEEK component at column side and thus can be used with Quick Connect fitting.

Caution: All PK/ST capillaries have PEEK capillary tips, which have lower mechanical resistance compared to stainless steel tips. Therefore, too high torque at tightening can cause irreversible damage of capillary tips leading to leaks or increased dead volume. To avoid over-tightening and to maximize the capillary lifetime, please be careful and follow the instructions on the technical note delivered with the fittings. Please note, depending on the use the capillary might not endure over 200 reconnections with Quick Connect fittings as the standard stainless steel capillaries usually do.



UHP-FF fitting (p/n 5067-5695)



InfinityLab Quick Turn fitting (p/n 5067-5966)



InfinityLab Quick Connect fitting (p/n 5067-5965)

## InfinityLab Bio-inert Quick Connect heat exchanger

Agilent InfinityLab Bio-inert Quick Connect column heat exchanger has an integrated capillary that can be connected to the valve and column inlet. At the column inlet side the spring and PEEK component exist, thus a Quick Connect fitting can be used.

Part Number	Description
G7116-60009	InfinityLab Bio-inert Quick Connect column heat exchanger, with a Quick Connect fitting for column inlet and a UHP-FF fitting for the other end
G7116-60041	InfinityLab Bio-inert Quick Connect column heat exchanger, standalone, without fittings



InfinityLab Quick Connect capillary with spring and PEEK component for use with InfinityLab Quick Connect fitting. (p/n 5500-1276)



Mounting tool for UHP-FF fitting and InfinityLab Quick Turn fitting (p/n 5043-0915)

## Titanium capillaries and fittings

For connections between the pump and the autosampler, titanium capillaries can be used. PK/ST capillaries should be used starting from autosampler to ensure a 100 % metal-free sample flowpath.

Five different lengths of titanium capillary are available:

Part Number	Description
G5611-60500	Ti capillary 0.17 mm id, 400 mm long, with Ti-gold fittings
5500-1264	Ti capillary 0.17 mm id, 500 mm long, with Ti-gold fittings
G5611-60501	Ti capillary 0.17 mm id, 700 mm long, with Ti-gold fittings
G5611-60502	Ti capillary 0.17 mm id, 900 mm long, with Ti-gold fittings
G5611-60503	Ti capillary 0.17 mm id, 160 mm long, with Ti-gold fittings

Caution: To prevent capillaries from cracking, it is advised not to run highly pure methanol (>98%) through titanium capillaries.



InfinityLab Bio-inert Quick Connect column heat exchanger with fittings (p/n G7116-60009)



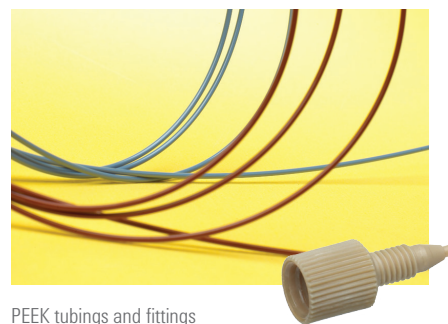
Titanium capillaries

## PEEK capillaries and fittings

Capillaries that are made from 100% PEEK have excellent bio-inertness, but poor resistance against high pressure (maximal pressure limit below 200 bar). For after-column connections, PEEK capillaries and fittings can serve as an economical alternative.

Part Number	Description
0890-1763	PEEK tubing, 0.18 mm id, 1.5 m length
5042-6462	PEEK tubing, 0.18 mm id, 5 m length
0890-1915	PEEK tubing, 0.13 mm id, 1.5 m length
5042-6461	PEEK tubing, 0.13 mm id, 5 m length
5065-4426	Colored finger-tight PEEK fittings 10/pk
8710-1930	Tubing cutter***

\*\*\*Note: The blade of the tubing cutter is made of metal. To avoid potential contamination through metal residue, we recommend wiping the capillary ends with lab tissue after cutting.



PEEK tubings and fittings

### Recommended connections for the Agilent 1260 Infinity II Bio-inert system\*

#### Pump to multisampler:

- Titanium capillary, 0.17 x 500 mm, with two titanium fittings (p/n 5500-1264)

#### Multisampler to column in multicolumn thermostat:

- PK/ST capillary 0.17 x 500 mm with two UHP fittings (p/n G5667-81005)
- + Bio-inert Union (p/n 5067-4741)
- + Quick Connect heat exchanger Bio-inert, with UHP-FF fitting at union and InfinityLab Quick Connect fitting at column inlet (p/n G7116-60009)

If not using heat exchanger:

- InfinityLab Quick Connect PK/ST capillary, 0.17 x 500 mm (excluding fittings) (p/n 5500-1277)
- + UHP-FF fitting, at multisampler (p/n 5067-5695)
- + InfinityLab Quick Connect fitting, at column inlet

#### Column to detector:

- PK/ST capillary 0.17 x 300 mm with two UHP fittings (p/n G5667-81003)

\*at standard one stack configuration, instruments directly on top of each other, from bottom to the top:  
pump → multisampler → multicolumn thermostat → UV detector.

Other capillary lengths might be needed at different configurations.

## InfinityLab convenience and capillary kits

Take advantage of the these convenience and capillary kits and be up-and-running with your 1260 Infinity II Bio-inert LC system in no time.

Part Number	Description
5067-6620	InfinityLab convenience kit for 1260 Infinity II Bio-inert LC. Includes solvent bottles, Stay Safe caps, vials, solvent glass filter, column holders, complete set of system capillaries, Quick Connect fitting, UHP-FF fitting, PTFE frits, multifunction tool, etc.
5067-6621	InfinityLab capillary kit for 1260 Infinity II Bio-inert LC. Includes complete set of system capillaries, Quick Connect fitting, bio-inert union, UHP-FF fittings, mounting tool, blank nut, PEEK tubing and fittings, and PTFE waste tube

Learn more about the  
Agilent 1260 Infinity II Bio-inert LC system  
**[www.agilent.com/chem/bio-inert](http://www.agilent.com/chem/bio-inert)**

Learn more about Agilent AdvanceBio columns  
**[www.agilent.com/chem/advancebio](http://www.agilent.com/chem/advancebio)**

Buy online  
**[www.agilent.com/chem/store](http://www.agilent.com/chem/store)**

Find a local Agilent customer center  
**[www.agilent.com/chem/contactus](http://www.agilent.com/chem/contactus)**

USA and Canada  
**1-800-227-9770**  
**[agilent\\_inquiries@agilent.com](mailto:agilent_inquiries@agilent.com)**

Europe  
**[info\\_agilent@agilent.com](mailto:info_agilent@agilent.com)**

Asia Pacific  
**[inquiry\\_lsca@agilent.com](mailto:inquiry_lsca@agilent.com)**

For Research Use Only. Not for use in diagnostic procedures.  
This information is subject to change without notice.

© Agilent Technologies, Inc., 2016  
Printed in the USA, November 9, 2016  
5991-7469EN



**Agilent Technologies**