

Ferrules

Wide range of choices for a wide range of instruments and applications

Thermo Scientific ferrules are available in three different materials and various dimensions to match the instrument and capillary column ID. The choice of material is dependent upon the use; guidelines are given in the table.

Material Type	Suitable for GC/MS	Temp Limit (°C)	Re-usable
Graphite	No	450	Yes
Graphite/Vespel	Yes	350	No
Stainless Steel (SiTite)	Yes	500	No

100% Graphite Ferrules



Thermo Scientific 100% graphite ferrules are a soft material that is porous to oxygen, making them suitable

for most applications except GC/MS interface connections. These easy-to-use ferrules form a soft grip with the column and provide a stable seal.

15% Graphite / 85% Vespel Ferrules



The mechanically robust 15% Graphite/85% Vespel ferrules have a long lifetime and are compatible with GC/MS. These

ferrules form a strong grip with the column and cannot be reused as they form a permanent seal with the column. They have a temperature limit of 350°C, but must be re-tightened after initial temperature cycles.

SiTite Metal Ferrules



SiTite metal ferrules and nuts are made from the same material and have the same thermal expansion coefficient.

The SiTite ferrule forms a strong, permanent, airtight seal around the capillary column, eliminating leaks. The base of the ferrule is flat and forms a perfect seal with the MS interface. The ferrule's temperature tolerance is well above the limit of the injector, MS interface or GC oven. Unlike other ferrules, SiTite Ferrules do not need re-tightening after installation.

Please also see syringes on page 3-109.

All varieties of ferrules are supplied in contaminant-free, individual blister packs, allowing removal of an individual item without risk of contamination to the other supplied items.

To select the most appropriate ferrule for your GC system, refer to the table below:

	100% Graphite	15% Graphite/ 85% Vespel	SiTite
Suitable for Thermo Scientific TRACE ULTRA SSL Injector	•	•	
Suitable for Thermo Scientific TRACE 1300/1310 & Agilent SSL Injectors	•	•	•
Suitable for Thermo Scientific TRACE ULTRA non-MS detectors	•	•	
Suitable for Thermo Scientific TRACE 1300/1310 & Agilent non-MS detectors	•	•	
Suitable for all Thermo Scientific & Agilent MS Detectors		•	•
Suitable for Thermo Scientific PTV Injector	•	•	

Ferrules for Thermo Scientific Instruments

For Use with	Material Type	Ferrule Size (Column ID) (mm)	Cat. No.	Quantity
Thermo Scientific TRACE 1300/1310 SSL Injectors and non-MS detectors	100 % Graphite	0.1-0.32	290GA139	10 Pack
		0.45-0.53	290GA140	10 Pack
	15% Graphite/85% Vespel	0.1-0.25	290VA191	10 Pack
		0.32	290VA192	10 Pack
		0.53	290VA193	10 Pack
Capillary Column Nut for Injectors and non-MS Detectors	Stainless Steel		290BT242	5 Pack
Thermo Scientific TRACE Ultra SSL Injectors and non-MS detectors	100 % Graphite	0.1-0.25	29053488	10 Pack
		0.32	29053487	10 Pack
		0.53	29053486	10 Pack
	15% Graphite/85% Vespel	0.1-0.25	29033461	10 Pack
		0.32	29033460	10 Pack
		0.53	29033471	10 Pack
		Packed Column 1/8" OD	290VT168	10 Pack
	Packed Column 1/4" OD	290VT165	10 Pack	
	15% Graphite/85% Vespel (3.4mm length)	0.1-0.25	290VT186	10 Pack*
		0.32	290VT187	10 Pack*
0.53		290VT188	10 Pack*	
Brass Nut for Graphite/Vespel Ferrules			290BT239	2 Pack
All Thermo Scientific PTV Injectors	100 % Graphite	0.1-0.25	29053488	10 Pack
		0.32	29053487	10 Pack
		0.53	29053486	10 Pack
Thermo Scientific MS detectors	15% Graphite/85% Vespel	0.1-0.25	29033496	10 Pack
		0.32	29033497	10 Pack
SilTite Kits for Thermo Scientific GC/MS Interface	SilTite Metal	0.1-0.25	290MT229	1 Each**
		0.32	290MT230	1 Each**
		0.53	290MT231	1 Each**
Replacement SilTite Ferrules for Thermo Scientific GC/MS Interface Kits	SilTite Metal	0.1-0.25	290MT221	10 Pack
		0.32	290MT222	10 Pack
		0.53	290MT223	10 Pack
		Replacement SilTite Nuts	290MT211	5 Pack
SilTite Kits for TRACE 1300 GC SSL Injectors	SilTite Metal	0.1-0.25	290MA215	1 Each**
		0.32	290MA216	1 Each**
		0.53	290MA217	1 Each**
SilTite Nuts for MS Interface			290MA205	5 Pack
SilTite Nuts for SSL Injectors			290MA207	5 Pack

* Vespel Ferrules must be used in conjunction with brass nut part number 290BT239

** SilTite Kits contain 2 SilTite nuts and 10 ferrules



Ferrules for Agilent Instruments

For Use with	Material Type	Ferrule Size (Column ID) (mm)	Cat. No.	Quantity
Agilent Injectors and non-MS detectors	100 % Graphite	0.1-0.32	290GA139	10 Pack
		0.45-0.53	290GA140	10 Pack
		Packed Column 1/8" OD	290GA108	10 Pack
		Packed Column 1/4" OD	290GA107	10 Pack
	15% Graphite/85% Vespel	0.1-0.25	290VA191	10 Pack
		0.32	290VA192	10 Pack
		0.53	290VA193	10 Pack
		Packed Column 1/8" OD	290VT168	10 Pack
		Packed Column 1/4" OD	290VT165	10 Pack
Capillary Column Nut for Injectors and non-MS Detectors	Stainless Steel		290BT242	5 Pack
Agilent MS detectors	15% Graphite/85% Vespel	0.1-0.25	29033496	10 Pack
		0.32	29033497	10 Pack
		0.53	290VP144	10 Pack
Capillary Column Nut for MS Detectors	Brass		290BT240	5 Pack
	Stainless Steel		290BT241	5 Pack
SilTite Kits for Agilent SSL injectors	SilTite Metal	0.1-0.25	290MA215	1 Each*
		0.32	290MA216	1 Each*
		0.53	290MA217	1 Each*
SilTite Kit for Agilent MS detectors	SilTite Metal	0.1-0.25	290MA194	1 Each**
		0.32	290MA195	1 Each**
		0.53	290MA196	1 Each**
Replacement SilTite Ferrules for all SilTite Kits	SilTite Metal	0.1-0.25	290MA201	10 Pack
		0.32	290MA202	10 Pack
		0.53	290MA203	10 Pack
SilTite Nuts for MS interface			290MA205	5 Pack
SilTite Nuts for SSL injectors			290MA207	5 Pack
Replacement Baseplate Seals			290MA227	2 Pack
			290MA228	10 Pack

* Kit contains 2 nuts, 10 ferrules and 2 base seals

** Kit contains 2 nuts and 10 ferrules