

crs GC ferrules



Reliable seal | Precision | Ultra clean

Designed to simplify your GC connections

Trajan Scientific and Medical manufacture a wide variety of standard and special ferrules used in gas chromatographs and other instruments. Our wide range of ferrules are made from Vespel®, Vespel/graphite, graphite and PTFE. The standard ferrule product line is used to seal tubing and capillaries to standard compression fittings in a variety of sizes.

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Graphite GC ferrules

Graphite GC ferrules are made from high purity exfoliated graphite. They seal with minimal torque and are reusable if they are not over tightened. Graphite GC ferrules do not shrink in use but are very soft and must be packed and handled with care.

Graphite ferrules are commonly used in GC systems on the inlet and detector ends because they don't stick to the column, and can be removed and reinserted easily. They should not be used with GC/MS instruments because of permeability to air.

You should always trim a short piece of the column after replacing the ferrule to be sure that not graphite particles have plugged the column.

Upper temperature limit of 450°C.



PTFE GC ferrules

PTFE GC ferrules are made from 100% PTFE. They are soft, completely inert, and have very low friction. PTFE GC ferrules are hydrophobic and commonly used in liquid applications.

Upper temperature limit of 250°C.



Connections | GC ferrules

Vespel GC ferrules

Vespel GC ferrules are made from 100% high-temperature polyimide, a hard polymeric material that tends to seal permanently to capillary columns when in use. A firm torque is required to compress and seal. They are not reusable and tend to shrink through repeated heating and cooling cycles.



Vespel GC ferrules are excellent for creating seals on metal or glass and have long lifetimes. 100% Vespel is essentially non-porous to oxygen so it is ideal for GC/MS interface use, where air permeation can raise the background signal and contribute to phase degradation. They also work best in connections that are isothermal or insulated from oven temperature changes.

Upper temperature limit of 350°C.

Vespel/graphite GC ferrules

Vespel/graphite GC ferrules are made from quality polyimide/graphite blend. They seal with minimal torque and can be reused and repositioned along capillary columns if not over compressed in the fitting. Due to slight shrinking at high temperatures, they must be retightened after initial temperature cycles to avoid leaks.



Two types of Vespel/graphite are commonly used, one with 40% graphite and one with 15% graphite. They are ideal for GC/MS interface applications because they are non-porous to oxygen. The inclusion of graphite increases high-temperature tolerance and reduces sticking and shrinkage.

Trajan offers both Vespel/graphite blends, a 60/40 mix and an 85/15 mix. The 85/15 maintains a high level of hardness and long lifetime. The 60/40 blend is softer, with improved wear resistance and lower friction. These ferrules will require less force to compress and form a seal.

Both blends have an upper temperature limit of 400 C.

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Visit us at www.trajanscimed.com or contact your regional Trajan representative for assistance and further information.



Trajan Scientific and Medical

Science that benefits people

Trajan is actively engaged in developing and delivering solutions that have a positive impact on human wellbeing. Our vision revolves around collaborative partnerships that improve workflows, delivering better results.