

General Description

Agilent Prep-Sil Scalar columns are analytical-scale versions of Agilent Prep-Sil preparative columns and are primarily used to develop methods for preparative applications involving Agilent Prep-Sil columns, as well as for purity checks. Agilent Prep-Sil utilizes an ultra-pure (Type B) silica support with high specific surface area (400 $m^2/gram$) and 100 Å pore size in two particle sizes - 5-microns and 10microns. The Agilent Prep-Sil columns have high sample loadability and give symmetrical peaks even for strongly basic compounds. The columns are stable at pH 0.8-8. Agilent Prep-Sil is especially useful for the preparative purification of acidic, basic, and other highly polar compounds by normal-phase liquid chromatography. Columns are loaded to a stable, uniform bed density using a proprietary, highpressure slurry-loading technique to give maximum column efficiency and maintain column bed stability.

Column Characteristics

The 5µm packings used in the Agilent Prep-Sil Scalar columns are produced using the same technology employed in the production of 10µm Agilent Prep-Sil packings used for preparative size columns. The same thorough quality control procedures are used to monitor all Agilent packings, including the measurement of surface area, pore size, and particle size of the base silica packing. Sensitive chromatographic tests are also performed on all packings to confirm lot-to-lot reproducibility. This technology permits the direct scale-up of separations from analytical to preparative proportions with little or no modifications required in methodology.

Safety Considerations

- All points of connection in liquid chromatographic systems are potential sources of leaks. Users of liquid chromatographic equipment should be aware of the toxicity or flammability of their mobile phases.
- Because of the small particle size, dry silica packings are respirable. Columns should only be opened in a well-ventilated area.

Agilent Prep-Sil Scalar Columns

Datasheet

Operational Guidelines

- The direction of flow is marked on the column.
- While it is not harmful to the column, reverse flow should be avoided except to attempt removal of inlet plugging.
- Agilent Prep-Sil Scalar columns are shipped containing hexane. Care should be taken not to pass any mobile phase through the column that might cause a precipitate.
- Agilent Prep-Sil Scalar columns are compatible with water and all common organic solvents.
- The use of a guard column is recommended to protect the silica column and extend its useful lifetime. Avoid use of this column below pH 0.8 or above pH 8. Maximum operating pressure for columns is 400 bar (6000 psi).
- Maximum operating temperature of unbonded silica columns is typically limited only by the temperature limits of the mobile phase.

Storage Recommendations

To avoid potential metal corrosion, long-term storage of any HPLC column in halogenated solvents (e.g., butyl chloride, methylene chloride, etc.) should be avoided. If the column has been used with a buffered mobile phase, the column should be purged with 10-20 column volumes of a mixture of acetonitrile and water followed by 20-30 column volumes of the pure organic solvent. Storage of unbonded silica columns in most other liquids is typically acceptable. Before storing the column, the end-fittings should be tightly capped with end-plugs to prevent the packing from drying out.

Agilent Ordering Information

For more information or to order our products, visit our Agilent Technologies home page on the World Wide Web at: www.Agilent.com/chem/supplies

For Technical Support in the US and Canada, call 1-800-227-9770 or call your local Agilent sales office.

