Instruction manuals

FlexFire

Thank you for purchasing the FlexFire series. Please read and follow this instruction manual carefully to ensure that your column provides reliable chromatography. Failure to comply with this instruction manual may void the column warranty.

Before using the column

Visually inspect the package and column and report any damage immediately. We may require you to return the column to us for inspection. Read the instruction manual and follow the specific instructions for this column, including system requirements, specifications, mobile phase conditions, and other usage instructions.

This column has a range of pH, temperature, mobile phase and pressure applications listed at the end of this article. You can also check our website and catalog.

Column protection

We recommend using a guard filter (P/N: GF28126) when potentially contaminated samples are analyzed or when chemically active mobile phases are used. Maximize column lifetime by trapping particulates and contaminants in your samples.

All solvents are recommended to be at least HPLC grade to reduce the risk of contamination. For best results, use high-purity deionized water and filtered and degassed HPLC-grade organic solvents. Always prepare buffers freshly to ensure that there is no contamination and that the pH has not changed. Always check the solubility of buffer salts in the solvent/buffer mixture before performing a new analytical method.

Column use and storage

Try to connect the column to the injector and detector using tubing with the smallest possible diameter (0.1-0.15 mm internal diameter recommended).

Ensure pipe sections are cut correctly and connections are made to reduce the risk of dead volume. Be sure that tubing and connections are used at the pressure required for your application.

Check the column solvent during transport and ensure that this is miscible with the measurement solvent. For example, if the column is to be used in reversed phase and transported in a water-immiscible solvent, first run it with the appropriate volume of co-solvent (such as IP or ethanol). Immediately before use, equilibrate the column with a minimum amount of mobile phase. The volume of mobile phase required for equilibration depends on the type of column and its usage, and is confirmed by a stable baseline and reproducible retention times.

When storing a column, first run it with buffer salts or other pH adjusters to reduce the risk of precipitation, and then store it in 100% organic solvent or a mixture of organic solvent and water to prevent microbial growth. It is necessary to suppress drying of the filler.

Troubleshooting

If the column performance is not as expected, please perform the following checks.

(i) Check the equipment, piping, and columns for leaks or blockages and that the system is completely purged with mobile phase.

(ii) The column is adjusted to remove solvents that are immiscible with the solvent during transport.

(iii) The mobile phase and syringe washes are the correct solvents and of the correct composition;

(iv) The column is suitable for the method and used within the operating conditions such as pH, pressure, and temperature.

(v) Do not open or modify the column. Warranty will be voided.

After performing the above checks, if the column still appears to be faulty, please perform a chromatogram reproduction test under the conditions listed in the CoA (Certificate of Product Inspection Report). If the retention time, plate number, or peak shape is significantly worse than what was recorded in the report, it may indicate that this column has degraded in performance. If you suspect a problem with your column, please report it immediately to your distributor or directly to us.

Document : FlexFire series spec sheet

Product	FlexFire C18	FlexFire AQ C18	FlexFire C8	FlexFire C1	FlexFire C30	FlexFire HILIC
Chemistry	Octadecyl	Octadecyl	Octyl	Trimethyl	Triacontyl	—
Particle size (μm)	1.6, 2.6, 5	1.6, 2.6, 5	1.6, 2.6, 5	1.6, 2.6, 5	1.6, 2.6, 5	1.6, 2.6, 5
Surface Area (m^2/g)	340	340	340	340	340	340
Pore Volume (mL/g)	1.0	1.0	1.0	1.0	1.0	1.0
Pore Diammeter (nm)	12	12	12	12	12	12
Carbon (%)	22	8.5	12	5.5	11	—
End cap	○	○	○	○	○	—
pH Range	pH1-11	pH1-9	pH1-11	pH1-10	pH1-10	pH1-7
Max Temperature (℃)	80	80	80	80	80	80
Max Pressure (bar)	1.6μm: 1,000bar 2.6μm: 600bar 5μm: 400bar					
USP	L1	L1	L7	L13	L62	L3

Product	FlexFire WP C18	FlexFire WP C8	FlexFire WP C4	FlexFire WP C1	FlexFire mAb-RP	FlexFire 120SEC	FlexFire 300SEC
Chemistry	Octadecyl	Octyl	Butyl	Trimethyl	Butyl	Diol	Diol
Particle size (μm)	2.6, 5	2.6, 5	2.6, 5	2.6, 5	2.6, 5	5	5
Surface Area (m^2/g)	170	170	170	170	27	340	170
Pore Volume (mL/g)	1.4	1.4	1.4	1.4	0.8	1.0	1.4
Pore Diammeter (nm)	30	30	30	30	115	12	30
Carbon (%)	15	7	5	3	1.3	9	6
End cap	○	○	○	○	○	—	—
pH Range	pH1-10	pH1-10	pH1-10	pH1-10	pH1-10	pH2-10	pH2-10
Max Temperature (℃)	80	80	80	80	80	80	80
Max Pressure (bar)	2.6μm: 600bar 5μm: 400bar					5μm: 400bar	
USP	L1	L7	L26	L13	L26	L33	L33

【CONTACT】

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