TSK-GEL® Super-Phenyl Products

Part Numbers:

18277, 4.6mm ID X 5cm, 2μm
18278, 4.6mm ID X 10cm, 2μm
20017, 2.0mm ID X 5cm, 2μm
20018, 2.0mm ID X 10cm, 2μm

18207, Guard filter (3/pk)
18206, Guard holder

This sheet contains the recommended operating conditions and the specifications for TSK-GEL Super-Phenyl columns and guard filters Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS

1. Shipping Solvent: 50% Acetonitrile - 50% Water

2. Max. Flow Rate: 4.0 mL/min (4.6mm ID)
0.25 mL/min (2.0mm ID)
When a buffer with high viscosity is used, the maximum flow rate may have to be reduced so it doesn't exceed the maximum pressure drop. When changing solvents, use a flow rate equal to 25% of the maximum flow.

3. Standard Flow Rate: 1.0 - 2.5 mL/min (4.6mm ID)
0.15 - 0.20 mL/min (2.0mm ID)

4. Max. Pressure: 30.0 MPa (4.6mm ID)
8.0 MPa (2.0mm ID x 5cm)
15.0 MPa (2.0mm ID x 10cm)

5. pH Range: 2.0 - 7.5

6. Organic Conc. Range: No limitation

7. Temperature: 10 - 50°C. Reduce flow rate when operating below 10°C.

8. Cleaning Solvents: (1) High conc. solvent containing organic modifiers*
(2) Mixture of organic acids and high conc. organic modifiers*

*Acetonitrile and methanol are recommended as a modifier.

9. Storage: Store the column in the shipping solvent if it will not be used within three days. Prevent air from entering the column. For overnight storage flush the column with mobile phase at 0.2mL/min.

10. Column Protection: An on-line filter (0.2-0.5μm) between pump and injection valve is recommended. Guard filters prevent the column from a contamination of strongly adsorbed solutes. As a general rule, guard filters should be replaced after 30-40 sample injections or when peaks become excessively wide.

B. SPECIFICATIONS

The performance of TSK-GEL Super-Phenyl column is tested under the conditions described in the data sheet. All columns have passed the following quality control specifications:

1. Number of Theoretical Plates (N): $\geq$ 8,000 (4.6mm ID x 5cm)
$\geq$ 16,000 (4.6mm ID x 10cm)
$\geq$ 3,000 (2.0mm ID x 5cm)
$\geq$ 6,000 (2.0mm ID x 10cm)

2. Asymmetry Factor (AF): 0.8 - 1.6 (4.6mm ID)
0.8 – 1.8 (2.0mm ID x 5cm)
0.7 – 1.6 (2.0mm ID x 10cm)