

TSK-GEL® OD-2PW Products

Analytical/Semi-Prep:	18754, 2.0mm ID x 15cm, 5µm	42161, Guardcartridge, 2mm ID x 1cm, use with PN 19308, 5µm 19308, Guard Cartridge Holder, for 2mm ID cartridges
	17500, 4.6mm ID x 15cm, 5µm 17501, 6.0mm ID x 15cm, 5µm	17502, Guard Column for P/N 17500, 4.6mm ID x 1.0cm, 5µm 17503, Guard Column for P/N 17501, 6.0mm ID x 1.0cm, 5µm
		14594, Pre-injector membrane filter holder, SS 03409, 13mm Nylon Membrane filter, 0.45µm, for PN 14594

This sheet contains the recommended operating conditions and the specifications for TSK-GEL OD-2PW columns and guard columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS

- Shipping Solvent: 55% Acetonitrile - 45% Water
- Max. Flow Rate: 0.14 mL/min (2.0mm ID x 15cm)
1.2 mL/min (4.6mm ID x 15cm)
1.5 mL/min (6.0mm ID x 15cm)

When a buffer with high viscosity is used, the maximum flow rate may have to be reduced so as not to exceed the maximum pressure drop. When changing solvents, use 50% of the maximum flow rate (20% for prep columns).

- Standard Flow Rate: 0.07 - 0.11 mL/min (2.0mm ID x 15cm)
0.4 - 0.6 mL/min (4.6mm ID x 15cm)
0.5 - 1.0 mL/min (6.0mm ID x 15cm)
- Max. Pressure: 70 kg/cm² = 1050 psi (2.0mm ID x 15cm)
100 kg/cm² = 1750 psi (4.6mm ID x 15cm, 6.0mm ID x 15cm)
- pH Range: 2 - 12 (pH above 12 can only be used for a short time for cleaning)
- Organic Conc.: 0 - 100%
- Temperature: 4 - 50°C during normal operation
15 - 30°C recommended for storage
- Cleaning Solvents: (1) Acetonitrile or Methanol, or
(2) 0.1 - 0.2M NaOH,
(3) 0.1 - 0.2N NaOH with added organic modifier
(4) 20 - 40% acetic acid aq.

NOTE: Clean the column regularly with any of the above solvents. Solvents should be injected into the column in 250 µl increments for a total of 0.2 - 1.0 ml of cleaning solvent (2) and (3). Long term exposure in (2) or (3) is not recommended. Use proportionally larger volumes for (semi-) prep columns.

- Storage: Store the column in the shipping solvent when it will not be used the next day. For overnight storage flush the column with the mobile phase at 10 - 20% of the maximum flow rate. Prevent air from entering the column!
- Column Protection: The use of guard columns is recommended to prolong the life of the analytical column. Guard column life depends greatly on sample cleanliness. As a general rule, guard columns should be replaced when the peaks become excessively wide or when the peaks show splitting. Use an in-line filter (0.2 - 0.5µm) between the pump and injector.

B. SPECIFICATIONS

The performance of TSK-GEL OD-2PW columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specifications:

- Number of Theoretical Plates (N): ≥ 5,000 (2.0mmID)
≥ 6,000 (4.6mm & 6mm ID)
- Asymmetry Factor (AF): 0.70 - 1.6

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