

TSK-GEL[®] Octadecyl-2PW Products

Part Numbers:	18754, 2.0mm ID x 15cm, 5µm 17500, 4.6mm ID x 15cm, 5µm 17501, 6.0mm ID x 15cm, 5µm	42161, Guard Cartridge for 2mm ID column, 2mm ID x 1cm 19308, Guard Cartridge holder for 2mm ID cartridges 17502, Guard Column for 4.6mm ID column, 4.6mm ID x 1cm 17503, Guard Column for 6.0mm ID column, 6mm ID x 1cm
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This sheet contains the recommended operating conditions and the specifications for TSK-GEL Octadecyl-2PW columns and guard columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS	
1. Shipping Solvent:	55% Acetonitrile - 45% Water
2. Max. Flow Rate:	0.14mL/min (2.0mm ID x 15cm) 1.2mL/min (4.6mm ID x 15cm) 1.5mL/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.
3. Standard Flow Rate:	0.07-0.11mL/min (2.0mm ID x 15cm) 0.4 – 0.6mL/min (4.6mm ID x 15cm) 0.5 – 1.0mL/min (6.0mm ID x 15cm)
4. Max. Pressure:	7MPa (2.0mm ID x 15cm) 12MPa (4.6mm ID x 15cm, 6.0mm ID x 15cm)
5. pH Range:	2 - 12 (pH above 12 can only be used for a short time for cleaning)
6. Organic Conc.:	0 - 100%
7. Temperature:	4 - 50°C during normal operation 15 - 30°C recommended for storage
8. Cleaning Solvents:	(1) Acetonitrile or Methanol, or (2) 0.1 - 0.2M NaOH, or (3) 0.1 - 0.2N NaOH with added organic modifier, or (4) 20 - 40% acetic acid aqueous NOTE: Clean the column regularly with any of the above solvents. Solvents should be injected into the column in 250µl increments for a total of 0.2 - 1.0mL of cleaning solvent (2) and (3). Long term exposure in (2) or (3) is not recommended.
9. 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!
10. 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 Octadecyl-2PW columns 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):	≥ 5,000 (2.0mm ID) ≥ 6,000 (4.6mm and 6.0mm ID)
2. Asymmetry Factor (AF):	0.70 - 1.6