

## TSKgel<sup>®</sup> SuperSW3000 Products

<b>Part Numbers:</b>	21845, TSKgel SuperSW3000, 1 mm ID x 30 cm	18762, Guard column for TSKgel SuperSW3000 column, 4.6 mm ID x 3.5 cm
	21485, TSKgel SuperSW3000, 2.0 mm ID x 30 cm	
	18675, TSKgel SuperSW3000, 4.6 mm ID x 30 cm	

This sheet contains the recommended operating conditions and the specifications for TSKgel SuperSW3000 columns. Installation instructions and column care information are described in a separate Instruction Manual.

<b>A. OPERATING CONDITIONS</b>	
1. Shipping Solvent:	0.05% NaN <sub>3</sub> and 0.1 mol/L Na <sub>2</sub> SO <sub>4</sub> in 0.1 mol/L phosphate buffer, pH 6.7
2. Max. Flow Rate:	0.02 mL/min (1 mm ID) 0.075 mL/min (2 mm ID) 0.4 mL/min (4.6 mm ID)
	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 a flow rate equal to 25% of the maximum flow rate.
3. Standard Flow Rate:	0.016 mL/min (1 mm ID) 0.065 mL/min (2 mm ID) 0.1 - 0.35 mL/min (4.6 mm ID)
4. Max. Pressure:	12 MPa
5. pH Range:	2.5 - 7.5
6. Salt Conc.:	≤ 0.5 mol/L
7. Organic Conc.:	0 - 100% for aqueous soluble organic solvents. Make gradual solvent changes using a shallow gradient at low flow rate.
8. Temperature:	10 - 30 °C. Reduce flow rate when operating below 10 °C.
9. Cleaning Solvents:	1. Turn the column in reverse flow direction and run at half the maximum flow rate. 2. Clean with 5 column volumes (CV) of 1 mol/L sodium chloride, pH 7.0 3. Clean with 5CV of ultra-pure water. 4. Clean with 5CV of 20% acetonitrile. 5. Clean with 5CV of ultra-pure water. 6. Turn column in normal flow direction and equilibrate in mobile phase for at least 45 minutes
10. Storage:	Store the column in mobile phase containing 0.05% NaN <sub>3</sub> or 20% ethanol when it will not be used the next day. For overnight storage flush the column with mobile phase at low flow rate. Prevent air from entering the column!
11. 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 after every 30-40 sample injections, when the peaks become excessively wide, or when the peaks show splitting.
<b>B. SPECIFICATIONS</b>	
The performance of TSKgel Super SW3000 columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specifications:	
1. Min. Number of Theoretical Plates (N):	18,000 (1 mm ID) 25,000 (2 mm ID) 30,000 (4.6 mm ID)
2. Asymmetry Factor (AF):	0.7 - 1.6