

TSK-GEL[®] SuperOligoPW Products

Part Numbers:	22792, TSKgel SuperOligoPW, 6.0mm ID x 15cm, 3 μ m	22796, Guard column for TSKgel SuperOligoPW column, 4.6mm ID x 3.5cm, 4 μ m
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This sheet contains the recommended operating conditions and the specifications for TSK-GEL SuperOligoPW columns and guard columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS	
1. Shipping Solvent:	Water
2. Standard Flow Rate:	0.3 – 0.6mL/min
3. Max Flow Rate:	0.6mL/min. NOTE: 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.
4. Max. Pressure:	5.0MPa
5. Temperature:	10 - 80°C. Reduce flow rate when operating below 10°C.
6. pH Range:	2.0 – 12.0
7. Salt Conc.:	<0.5 Molar
8. Organic Conc.:	< 20% methanol, ethanol, acetonitrile, formic acid, dimethylsulfoxide, etc. It is possible to use up to 50% organic when the solvent change is made very gradually using a shallow gradient at low flow rate.
9. Mobile Phase:	Although some non-ionic compounds can be analyzed in a distilled water mobile phase, it is generally recommended to perform the analysis with aqueous salt solutions or buffered solutions, while considering the presence of ionic impurities which may interact with the support. Representative mobile phases are: <u>Salts in aqueous solutions:</u> Sodium sulfate, sodium acetate, sodium dihydrogen phosphate, ammonium acetate, ammonium formate. <u>Buffers:</u> Phosphate, tris hydrochloric acid, tris acetate, citrate, acetate.
10. Cleaning Solvents:	Adsorbed materials may be removed from the column by injecting solutions that have different properties from the mobile phase. (1) To remove ionic species: use high salt concentration buffer (less than 0.5M) (2) To remove adsorbed basic compounds: use pH 2 - 3 acetic acid buffer (3) To remove hydrophobic adsorption: use a buffer in acetonitrile or methanol
11. Storage:	For overnight storage flush mobile phase through the column at low flow rate. For longer term storage, purge the system with distilled water. Remove the column from the system and keep the ends of the column tightly capped with the end plugs supplied with the column. Under all circumstances, prevent air from entering the column!
12. Column Protection:	The use of the TSKgel SuperOligoPW guard column is recommended to prolong the life of the TSK-GEL SuperOligoPW columns. 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.
B. SPECIFICATIONS	
The performance of TSK-GEL SuperOligoPW 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):	>16,000
2. Asymmetry Factor (AF):	0.7 – 1.6

DS1236 04OCTOBER2010

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