TSK-GEL® G6000PW Products

Part Numbers:	05765, 7.5mm ID X 30cm, 17µm 05109, 7.5mm ID X 60cm, 17µm 06762, 7.5mm ID x 7.5cm, 12µm, Guard Column	20024, BioAssist G6PW, 7.8mm ID X 30cm, 17 µm

This sheet contains the recommended operating conditions and the specifications for TSK-GEL G6000PW columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS

1. Shipping Solvent: Water

2. Max. Flow Rate: 1.2 mL/min (7.5mm ID)
   8.0 mL/min (21.5mm 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: 0.5 - 1.0 mL/min (7.5mm ID)
   1.6 - 6.0 mL/min (21.5mm ID)

4. Max. Pressure: 10 kg/cm^2 = 150 psi (7.5mm ID X 30cm and 21.5mm ID X 60cm)
   20 kg/cm^2 = 300 psi (7.5mm ID X 60cm)

5. pH Range: 2.0 - 12.0

6. Salt Conc.: ≤ 0.5 Molar

7. Organic Conc.: ≤ 20%. 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.

8. Temperature: 10 - 80°C, Reduce flow rate when operating below 10°C.

9. Cleaning Solvents: (1) High salt concentration buffer (0.5 - 1.0M), or
   (2) pH 2 - 3 or pH 9 - 12 buffer, or
   (3) Buffer with acetonitrile or methanol, or
   (4) Buffer with urea or SDS

   NOTE: Choose a cleaning solvent based on sample properties, e.g. use (1) to remove basic polymers, and (3) to remove hydrophobic proteins etc.

10. Storage: Store the column in a 0.05% NaN_3 solution or 20% ethanol in DI water when it will not be used the next day. For overnight storage flush the column at low flow rate with the mobile phase. 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.

12. TSKtop-off gel: Occasionally, due to accident, sample, mobile phase or operational variables, a depression can develop at the column or guard column inlet. Use TSKtop-off gel G3PW for filling in such voids.

B. SPECIFICATIONS

The performance of TSK-GEL G6000PW 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): ≥ 3,000 (7.5mm ID X 30cm)
   ≥ 6,000 (60cm columns)

2. Asymmetry Factor (AF): 0.7 - 1.6