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## OPERATING CONDITIONS and SPECIFICATIONS

### TSK-GEL® BioAssist S

**Part Numbers:** 19686 4.6 mm ID x 5.0 cm L PEEK Column 7µm

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

#### A. OPERATING CONDITIONS

1. Shipping Solvent: 20% Ethanol in 20 mM phosphate buffer (pH 6.5)

2. Max.Flow Rate: 1.0 ml/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.

3. Standard Flow Rate: 0.3 - 0.8 ml/min

4. Max. Pressure: 25 kg/cm<sup>2</sup> = 350 psi

5. pH Range: 2 - 12 less than one month  
3 - 10 more than one month

6. Salt Conc.: ≤ 2.5 Molar

7. Organic Conc.: ≤ 30 %

8. Temperature: 4 - 60°C

9. Cleaning Solvents: (1) 0.1 - 0.5 M NaOH,  
(2) 20 - 40% acetic acid aqueous  
(3) Aqueous buffer in 30% acetonitrile or methanol,  
(4) 0.5 M NaOH + 30% Ethanol  
(5) 8 M Urea, or 6 M Guanidine or non-ionic surfactant in buffer.

**NOTE:** Clean the column regularly by injecting up to one column volume 0.1 - 0.5 M NaOH in 250µl increments. Column cleaning could be also performed in reverse direction at ~ 25% standard flow rate.

10. Storage: The column can be stored in mobile phase for short periods. For longer term storage, use 20% aqueous ethanol in 20 mM phosphate buffer (pH 6.5). Prevent air from entering the column, and keep it from drying out.

11. Solvent Compatibility: Avoid long term exposure (more than one month) to concentrated alkali or acid solutions.

12. Connection of Column Connect the PEEK column with a 10-32 polymer nut and ferrule.

#### B. SPECIFICATIONS

The performance of TSK-GEL BioAssist S 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): ≥ 1,500

Asymmetry Factor (AF): 0.9 – 1.8