

TSK-GEL® BioAssist Chelate Products

Analytical: 20022, 7.8mmID x 5cm

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

A. OPERATING CONDITIONS

1. Shipping Solvent: 10mmol/L acetic acid buffer (pH=4.5)
2. Max. Flow Rate: 1.2 mL/min

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 50% of the maximum flow rate (20% for prep columns).
3. Standard Flow Rate: 0.5 - 1.0 mL/min
4. Max. Pressure: 1.0 MPa
5. pH Range: 2.0 - 12.0
6. Salt Conc.: ≤ 4 mol/L
7. Organic Conc.: ≤ 20 % (Avoid precipitating salt on the column)
8. Temperature: ≤ 45 °C - Reduce flow rate when operating below 10°C.
9. Cleaning Solvents: (1) 0.1 - 0.2 mol/L NaOH, and, if not successful,
(2) 20 - 40 % acetic acid aq.

NOTE: Clean the column regularly by injecting up to one column volume 0.1 - 0.2 mol/L NaOH in 250 µL increments.

10. Storage: Store the column in distilled water when it will not be used the next day or 20% ethanol or methanol for longer term storage. Rinse with distilled water before switching to organic to avoid salt precipitation. For overnight storage flush the column with the low salt concentration mobile phase at 10 - 20% of the max. flow rate. Prevent air from entering the column!
11. Column Protection: The use of pre-filter is recommended to prolong the life of the analytical column.

B. SPECIFICATIONS

The performance of TSK-GEL Chelate 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):	≥ 800
2. Asymmetry Factor (AF):	0.8 - 1.6