



Zettachring 6, 70567 Stuttgart, Germany
 Tel: +49-711-13257-0 Fax: +49-711-13257-89
 E-Mail: info.sep.eu@tosoh.com
 Web: www.tosohbioscience.com

3604 Horizon Drive, Suite 100, King of Prussia, PA 19406, USA
 Tel: +1 800-366-4875 Fax: +1 610-272-3028
 E-Mail: info.sep.am@tosoh.com
 Web: www.tosohbioscience.com

OPERATING CONDITIONS and SPECIFICATIONS

TSK-GEL® BioAssist Q

Part Numbers:	19685	4.6 mm ID x 5.0 cm L	PEEK Column	10 µm
	21410	10.0 mm ID x 10.0 cm L	PEEK Column	13 µm

This sheet contains the recommended operating conditions and the specifications for TSK-GEL BioAssist Q 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 Tris-HCl buffer (pH 8.0)
2. Max. Flow Rate:

1.2 ml/min	4.6 mm ID x 5.0 cm L
7.0 ml/min	10.0 mm ID x 10.0 cm L

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 - 1.0 ml/min	4.6 mm ID x 5.0 cm L
1.0 - 5.0 ml/min	10.0 mm ID x 10.0 cm L
4. Max. Pressure:

25 kg/cm ² = 350 psi	4.6 mm ID x 5.0 cm L
25 kg/cm ² = 350 psi	10.0 mm ID x 10.0 cm L
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 nonionic surfactant in buffer.

NOTE: Clean the column regularly by injecting up to one column volume 0.1 - 0.5 M NaOH in 250 µl 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 Tris-HCl buffer (pH 8.0). Prevent air from entering the column, and keep it from drying out.
11. Solvent Compatibility: Avoid long term (longer than one month) exposure 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 Q 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):	≥ 500
Asymmetry Factor (AF):	0.9 - 1.8