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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel® Super Q-5PW Products

Part Numbers:	18257	7.5 mm ID x 7.5 cm L	10 µm	Steel	18388	Guardgel Kit	For 7.5 mm ID x 7.5 cm L
	18386	7.5 mm ID x 8.0 cm L	10 µm	Glass	18389	Guardgel Kit	Glass
	18387	21.5 mm ID x 15.0 cm L	13 µm	Steel	18390	Guardgel Kit	For 21.5 mm ID x 15.0 cm L

Small Ion Capacity: > 0.1 meq / ml **Counter Ion:** Cl⁻

This sheet contains the recommended operating conditions and the specifications for **TSKgel** Super Q-5PW columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS

1. Shipping Solvent: Distilled and Deionized Water

2. Max.Flow Rate: 1.2 ml/min
8.0 ml/min

- NOTE:**
- a. When changing solvents, use a flow rate equal to 50% of the maximum flow rate.
 - b. 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
4.0 – 6.0 ml/min

4. Max. Pressure: 20 kg / cm² = 300 psi 7.5 mm ID x 7.5 cm L
20 kg / cm² = 300 psi 21.5 mm ID x 15.0 cm L

5. pH Range: 2.0 - 12.0

6. Salt Conc.: ≤ 0.5 Molar

7. Organic Conc.: ≤ 20 %

8. Temperature: ≤ 45° C Reduce flow rate when operating below 10° C.

9. Cleaning Solvents: (1) 0.1 - 0.2 M NaOH, and, if not successful,
(2) 20 - 40 % acetic acid aq., or
(3) Aqueous buffer in 30% acetonitrile or methanol, or, if nothing else is successful,
(4) Urea or non ionic surfactant in buffer.

NOTE: Clean the column regularly by injecting up to one column volume 0.1 - 0.2 M NaOH in 250µl increments.

10. Storage: Store the column in DI water when it will not be used the next day. For overnight storage flush the column with the low salt concentration mobile phase at 10 - 20% of the maximum flow rate. Prevent air from entering the column!

B. SPECIFICATIONS

The performance of **TSKgel** Super Q-5PW 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): ≥ 1,300 7,5 mm ID x 7.5 cm L 10 µm
≥ 3,000 21.5 mm ID x 15.0 cm L 13 µm

Asymmetry Factor (AF): 0.8 - 1.6 7,5 mm ID x 7.5 cm L 10 µm

Please note, that there are no asymmetry specifications for the 21.5 mm ID columns available.