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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel® Super-ODS Products

Part Numbers:	0020015	1.0 mm ID x 5.0 cm L		
	0018154	4.6 mm ID x 5.0 cm L		2 µm
	0018197	4.6 mm ID x 10.0 cm L		2 µm
	0019541	2.0 mm ID x 5.0 cm L		2 µm
	0019542	2.0 mm ID x 10.0 cm L		2 µm
	0018207	4.0 mm ID x 0.4 cm L	TSK Guard filter for 4.6 mm ID columns	
	0018206		Cartridge Holder, for the guard filter PN 0018207	
	0019672		Super-ODS Guard column for 2.0 mm ID columns	

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

A. OPERATING CONDITIONS

1. Shipping Solvent: 70% Methanol - 30% Water
2. Max.Flow Rate:

4.00 mL/min	4.6 mm ID
0.25 mL/min	2.0 mm ID
0.06 mL/min	1.0 mm ID

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:

1.00 - 2.50 mL/min	4.6 mm ID
0.15 - 0.20 mL/min	2.0 mm ID
0.03 - 0.05 mL/min	1.0 mm ID
4. Max. Pressure:

30 MPa	4.6 mm ID
25 MPa	2.0 mm ID
15 MPa	1.0 mm ID
5. pH Range: 2.0 - 7.5
6. Salt Conc.: No limitation
7. Organic Conc.: No limitation
8. Temperature: 10 - 50°C. Reduce flow rate when operating below 10°C.

9. Cleaning Solvents:
 - (1) High conc. solvent containing organic modifiers*
 - (2) Mixture of organic acids and high conc. organic modifiers*

NOTE: *Acetonitrile and methanol are recommended as a modifier.

10. Storage: Store the column in the shipping solvent if it will not be used within three days. Prevent air from entering the column. For overnight storage flush the column with mobile phase at 0.2 mL/min (4.6 mm ID column) or 0.05 mL/min (2.0 mm ID column) respectively.
11. Column Protection: An on-line filter (0.2-0.5 µm) equipped between pump and injection valve is recommended. Guard filters prevent the column from a contamination of strongly adsorbed solutes. As a general rule, guard filters should be replaced after 30-40 sample injections or when peaks become excessively wide.

B. SPECIFICATIONS

The performance of **TSKgel** Super-ODS 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	1.0 mm ID x 5.0 cm L
	≥	8,000	4.6 mm ID x 5.0 cm L
	≥	16,000	4.6 mm ID x 10.0 cm L
	≥	6,000	2.0 mm ID x 5.0 cm L
	≥	12,000	2.0 mm ID x 10.0 cm L

Asymmetry Factor (AF):	0.8 – 2.0	1.0 mm ID
	0.8 – 1.5	2.0 mm ID
	0.8 – 1.6	4.6 mm ID