

# TSKgel® ODS-80Ts Products

|                      |                                  |                                                                        |
|----------------------|----------------------------------|------------------------------------------------------------------------|
| <b>Part Numbers:</b> | 18150, 2.0 mm ID x 15 cm, 5 µm   | 19325, Guard Cartridge for 2 mm ID columns, 2 mm ID x 1 cm, 5 µm       |
|                      | 18151, 2.0 mm ID x 25 cm, 5 µm   | 19308, Guard Cartridge Holder for p/n 19325, 2 mm ID x 1 cm            |
|                      | 17200, 4.6 mm ID x 7.5 cm, 5 µm  | 19011, Guard Cartridge for 4.6 mm ID columns, 3.2 mm ID x 1.5 cm, 5 µm |
|                      | 17201, 4.6 mm ID x 15 cm, 5 µm   | 19018, Guard Cartridge Holder for p/n 19011, 3.2 mm ID x 1.5 cm        |
|                      | 17202, 4.6 mm ID x 25 cm, 5 µm   | 17385, Guard column, 21.5mm ID x 7.5 cm, 10 µm                         |
|                      | 17380, 21.5 mm ID x 30 cm, 10 µm |                                                                        |

This sheet contains the recommended operating conditions and the specifications for TSKgel ODS-80Ts columns and guard 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: 0.22 mL/min (2.0 mm ID)  
1.2 mL/min (4.6 mm ID)  
12.0 mL/min (21.5 mm ID)  
  
When a buffer with high viscosity is used, the maximum flow rate may have to be reduced so it doesn't exceed the maximum pressure drop. When changing solvents, use a flow rate equal to 25% of the maximum flow.
3. Standard Flow Rate: 0.15 - 0.18 mL/min (2.0 mm ID)  
0.8 - 1.0 mL/min (4.6 mm ID)  
4.0 - 6.0 mL/min (21.5 mm ID)
4. Max. Pressure: 100 kg/cm<sup>2</sup> = 1500 psi (4.6 mm ID x 7.5 cm)  
200 kg/cm<sup>2</sup> = 3000 psi (4.6mm ID x 15cm, 2.0 mm ID x 15 cm)  
300 kg/cm<sup>2</sup> = 4500 psi (4.6mm ID x 25cm, 2.0 mm ID x 25 cm)  
60 kg/cm<sup>2</sup> = 900 psi (21.5 mm ID x 30cm)
5. pH Range: 2.0 - 7.5
6. Salt Conc. Range: No limitation
7. Organic Conc. Range: 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\*  
  
\*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.
11. Column Protection: An on-line filter (0.2-0.5 µm) equipped between pump and injection valve is recommended. Guard columns prevent the column from a contamination of strongly adsorbed solutes. As a general rule, guard columns should be replaced after 30-40 sample injections or when peaks become excessively wide.

## B. SPECIFICATIONS

The performance of TSKgel ODS-80Ts column 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): ≥ 4,500 (7.5 cm columns)  
≥ 11,000 (15 cm columns)  
≥ 18,000 (25 cm columns)  
≥ 6,000 (30 cm columns)
2. Asymmetry Factor (AF): 0.7 - 1.8 (4.6 mm ID & 21.5 mm ID)  
0.8 - 1.6 (2.0 mm ID)