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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel ® ODS-100V

Part Numbers:

0021838	1.0 mm ID x 3.5 cm L	**3 µm**				
0021839	1.0 mm ID x 5.0 cm L	**3 µm**				
0021814	2.0 mm ID x 1.0 cm L	**3 µm**	3 pieces /pkg Guard Cartridges Holder recommended			
			0022708	2.0 mm ID x 1.0 cm L	**5 µm**	
0022700	2.0 mm ID x 2.0 cm L	**3 µm**	0022709	2.0 mm ID x 2.0 cm L	**5 µm**	
0021813	2.0 mm ID x 3.5 cm L	**3 µm**	0022710	2.0 mm ID x 3.5 cm L	**5 µm**	
0021812	2.0 mm ID x 5.0 cm L	**3 µm**	0021457	2.0 mm ID x 5.0 cm L	**5 µm**	
0021811	2.0 mm ID x 7.5 cm L	**3 µm**	0022711	2.0 mm ID x 7.5 cm L	**5 µm**	
0021938	2.0 mm ID x 10.0 cm L	**3 µm**	0022712	2.0 mm ID x 10.0 cm L	**5 µm**	
0021810	2.0 mm ID x 15.0 cm L	**3 µm**	0021458	2.0 mm ID x 15.0 cm L	**5 µm**	
0022701	2.0 mm ID x 25.0 cm L	**3 µm**	0022713	2.0 mm ID x 25.0 cm L	**5 µm**	
0022702	3.0 mm ID x 2.0 cm L	**3 µm**	0022714	3.0 mm ID x 2.0 cm L	**5 µm**	
0022703	3.0 mm ID x 3.5 cm L	**3 µm**	0022715	3.0 mm ID x 3.5 cm L	**5 µm**	
0021842	3.0 mm ID x 5.0 cm L	**3 µm**	0022716	3.0 mm ID x 5.0 cm L	**5 µm**	
0021843	3.0 mm ID x 7.5 cm L	**3 µm**	0022717	3.0 mm ID x 7.5 cm L	**5 µm**	
0021939	3.0 mm ID x 10.0 cm L	**3 µm**	0022718	3.0 mm ID x 10.0 cm L	**5 µm**	
0021844	3.0 mm ID x 15.0 cm L	**3 µm**	0022719	3.0 mm ID x 15.0 cm L	**5 µm**	
0022704	3.0 mm ID x 25.0 cm L	**3 µm**	0022720	3.0 mm ID x 25.0 cm L	**5 µm**	
0022705	4.6 mm ID x 2.0 cm L	**3 µm**	0022721	4.6 mm ID x 2.0 cm L	**5 µm**	
0022706	4.6 mm ID x 3.5 cm L	**3 µm**	0022722	4.6 mm ID x 3.5 cm L	**5 µm**	
0021831	4.6 mm ID x 5.0 cm L	**3 µm**	0022723	4.6 mm ID x 5.0 cm L	**5 µm**	
0021830	4.6 mm ID x 7.5 cm L	**3 µm**	0022724	4.6 mm ID x 7.5 cm L	**5 µm**	
0021940	4.6 mm ID x 10.0 cm L	**3 µm**	0022725	4.6 mm ID x 10.0 cm L	**5 µm**	
0021829	4.6 mm ID x 15.0 cm L	**3 µm**	0021455	4.6 mm ID x 15.0 cm L	**5 µm**	
0022707	4.6 mm ID x 25.0 cm L	**3 µm**	0021456	4.6 mm ID x 25.0 cm L	**5 µm**	
0021997	2.0 mm ID x 1.0 cm L	**3 µm**	pkg. of 3 Guard Cartridges for all 3 µm ODS-100V 2.0 mm ID columns			
0021453	3.2 mm ID x 1.5 cm L	**5 µm**	pkg. of 3 Guard Cartridges for all ODS-100V 4.6 mm ID columns			
0019308	**TSKgel** Guard Cartridge Holder for 2.0 mm ID Cartridges					
0019018	**TSKgel** Guard Cartridge Holder for 3.2 mm ID Cartridges					

This sheet contains the recommended operating conditions and the specifications for **TSKgel** ODS-100V columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATINGCONDITIONS

1. Shipping Solvent: Acetonitrile

Note: When a buffer with high viscosity is used, the 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.

2. Max. Pressure:

		Part Numbers
9	MPa	P/N 0022709; 0022710; 0022714; 0022715; 0022721; 0022722;
12	MPa	P/N 0022700; 0022702; 0022703; 0022705; 0022706; 0022716; 0022723
15	MPa	P/N 0021838; 0021839; 0021812; 0021813; 0021842; 0021831;
18	MPa	P/N 0021455; 0021457; 0021458; 0022711; 0022712; 0022713; 0022717; 0022718; 0022719; 0022720; 0022724;
21	MPa	P/N 0021811; 0021843; 0021830; 0021456;
24	MPa	P/N 0021938; 0021810; 0021939; 0021844; 0021940; 0021829;
28	MPa	P/N 0022708;
30	MPa	P/N 0021814; 0022701; 0022704; 0022707

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3.	pH Range:	2.0 - 7.5		
4.	Organic Conc.:	5 µm: 0 – 100%	polar and non polar	switch to 100% acetonitrile before switching to 100% non polar solvents.
		3 µm: 0 – 100%	polar and non polar	switch to 95% acetonitrile before switching to 100% non polar solvents.
5.	Temperature:	10°C - 80°C	5 µm columns	
		10°C - 50°C	3 µm columns	
6.	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.	
7.	Storage:		Store the column in the shipping solvent when it will not be used the next day. For overnight storage flush the column with the mobile phase at 0.2 mL/min (4.6 mm ID) or 0.05 mL/min (2.0 mm ID) respectively.	
8.	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-100V column is tested under the conditions described in the data sheet. All columns have passed the following quality control specifications:

No. of Theoretical Plates (N):	Part Numbers	TP (N)	Part Numbers
≥ 300	P/N 0022708;	≥ 8,600	P/N 0021811;
≥ 500	P/N 0021814;	≥ 9,000	P/N 0021843; 0022725;
≥ 1,000	P/N 0022709; 0022714;	≥ 9,750	P/N 0021830;
		≥ 11,000	P/N 0021458;
≥ 1,500	P/N 0022700; 0022721;	≥ 11,500	P/N 0021938;
≥ 2,000	P/N 0022702;	≥ 12,000	P/N 0021939;
≥ 2,500	P/N 0022705; 0022710;	≥ 13,000	P/N 0022719;
≥ 2,900	P/N 0021838;	≥ 13,500	P/N 0021940;
≥ 3,000	P/N 0021457; 0022715; 0022722;	≥ 14,000	P/N 0021455;
≥ 4,000	P/N 0021813; 0022703; 0022716;	≥ 17,500	P/N 0021810;
≥ 4,500	P/N 0021839; 0022706; 0022723;	≥ 18,000	P/N 0021844;
≥ 5,500	P/N 0022711;	≥ 19,500	P/N 0021829; 0022713;
≥ 5,700	P/N 0021812;	≥ 21,000	P/N 0022720;
≥ 6,000	P/N 0021842; 0022717;	≥ 23,000	P/N 0021456;
≥ 6,500	P/N 0021831;	≥ 28,000	P/N 0022701;
≥ 7,000	P/N 0022712; 0022724;	≥ 29,000	P/N 0022704;
≥ 8,500	P/N 0022718;	≥ 30,000	P/N 0022707;

Asymmetry Factor (AF):	Part Numbers		(AF)	Part Numbers	
			0.90 - 1.15	P/N 0021455; 0021456;	**5 µm**
0.90 - 1.20	P/N 0021812; 0021813; 0021811; 0021938; 0021810; 0022701; 0022703; 0021842; 0021843; 0021939; 0021844; 0022704; 0022706; 0021831; 0021830; 0021940; 0021829; 0022707;	**3 µm**	0.90 - 1.20	P/N 0022710; 0021457; 0022711; 0022712; 0021458; 0022713; 0022715; 0022716; 0022717; 0022718; 0022719; 0022720; 0022722; 0022723; 0022724; 0022725;	**5 µm**
0.90 - 1.30	P/N 0021839;	**3 µm**	0.90 - 1.60	P/N 0022709; 0022714; 0022721;	**5 µm**
0.90 - 1.40	P/N 0021838;	**3 µm**	0.90 - 2.20	P/N 0022708;	**5 µm**
0.90 - 1.60	P/N 0022700; 0022702; 0022705;	**3 µm**			
0.90 - 2.20	P/N 0021814;	**3 µm**			

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