

TSK-GEL[®] Amide-80 Products

	P/N 21982, TSKgel Amide-80 HR, 4.6mm ID x 25cm, 5 μ m		
Part Numbers:	20009, 1mm ID x 5cm, 5 μ m	14459, 7.8mm ID x 30cm, 10 μ m	21941, Guard Cartridge for 2mm ID, 5 μ m columns
	20010, 1mm ID x 10cm, 5 μ m	14460, 21.5mm ID x 30cm, 10 μ m	19021, Guard Column for 4.6mm ID, 5 μ m columns
	21486, 1mm ID x 15cm, 5 μ m		19010, Guard Cartridge for 4.6mm ID, 5 μ m columns
	21487, 1mm ID x 25cm, 5 μ m	21864, 2mm ID x 5cm, 3 μ m	14461, Guard Column, for 21.5mm ID, 10 μ m column
	19694, 2mm ID x 5cm, 5 μ m	21865, 2mm ID x 15cm, 3 μ m	21862, Guard Cartridge for 2mm ID, 3 μ m columns
	19695, 2mm ID x 10cm, 5 μ m	21866, 4.6mm ID x 5cm, 3 μ m	21863, Guard Cartridge for 4.6mm ID, 3 μ m columns
	19696, 2mm ID x 15cm, 5 μ m	21867, 4.6mm ID x 15cm, 3 μ m	19018, Guard Cartridge Holder for 3.2mm ID cartridges
	19697, 2mm ID x 25 cm, 5 μ m		19308, Guard Cartridge Holder for 2mm ID cartridges
	19532, 4.6mm ID x 5cm, 5 μ m		
	19533, 4.6mm ID x 10cm, 5 μ m		
	13071, 4.6mm ID x 25cm, 5 μ m		

This sheet contains the recommended operating conditions and the specifications for TSK-GEL Amide-80 columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS																									
1. Shipping Solvent:	85% Acetonitrile - 15% Water for 3 μ m & HR columns, 75% Acetonitrile - 25% Water for 5 μ m & 10 μ m columns																								
2. Max. Pressure:	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Pressure:</th> <th style="text-align: left;">Column:</th> </tr> </thead> <tbody> <tr> <td>20MPa</td> <td>all 3μm columns</td> </tr> <tr> <td>3MPa</td> <td>1mm ID x 5cm, 5μm</td> </tr> <tr> <td>6MPa</td> <td>1mm ID x 10cm, 5μm</td> </tr> <tr> <td>9MPa</td> <td>1mm ID x 15 cm, 5μm</td> </tr> <tr> <td>12MPa</td> <td>1mm ID x 25cm, 5μm</td> </tr> <tr> <td>4MPa</td> <td>2mm ID x 5cm, 5μm</td> </tr> <tr> <td>8MPa</td> <td>2mm ID x 10cm, 5μm</td> </tr> <tr> <td>10MPa</td> <td>2mm ID x 15cm, 5μm</td> </tr> <tr> <td>15MPa</td> <td>2mm ID x 25cm & all 4.6mm ID columns (including HR), 5μm</td> </tr> <tr> <td>7MPa</td> <td>7.8mm ID x 30cm, 10μm</td> </tr> <tr> <td>3MPa</td> <td>21.5mm ID x 30cm, 10μm</td> </tr> </tbody> </table>	Pressure:	Column:	20MPa	all 3 μ m columns	3MPa	1mm ID x 5cm, 5 μ m	6MPa	1mm ID x 10cm, 5 μ m	9MPa	1mm ID x 15 cm, 5 μ m	12MPa	1mm ID x 25cm, 5 μ m	4MPa	2mm ID x 5cm, 5 μ m	8MPa	2mm ID x 10cm, 5 μ m	10MPa	2mm ID x 15cm, 5 μ m	15MPa	2mm ID x 25cm & all 4.6mm ID columns (including HR), 5 μ m	7MPa	7.8mm ID x 30cm, 10 μ m	3MPa	21.5mm ID x 30cm, 10 μ m
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3. pH Range:	2.0 - 7.5																								
4. Organic Conc.:	3 μ m: 0 - 100% polar and nonpolar (switch to 95% acetonitrile before switching to 100% nonpolar solvents) 5 μ m, including HR, & 10 μ m: *0 - 100% polar and nonpolar (*switch to 100% acetonitrile before switching to 100% nonpolar solvents)																								
5. Temperature:	3 μ m: 10 - 50°C 5 μ m, including HR, & 10 μ m: 10 - 80°C																								
6. Cleaning Solvents:	(1) 45% Acetonitrile (2) 50mM phosphate buffer, pH 6.0/acetonitrile 50/50																								
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 50% of the recommended flow rate for the column.																								
8. Column Protection:	The use of guard columns is recommended to prolong the life of the analytical column. Guard column life depends greatly on sample cleanliness. As a general rule, guard columns should be replaced after every 30-40 sample injections, when the peaks become excessively wide, or when the peaks show splitting.																								

B. SPECIFICATIONS

The performance of TSK-GEL Amide-80 columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specifications:

N:	Column:
18,000	4.6mm ID x 25cm, 5 μ m, HR
3,500	2mm ID x 5cm, 3 μ m
13,000	2mm ID x 15cm, 3 μ m
6,000	4.6mm ID x 5cm, 3 μ m
18,500	4.6mm ID x 15cm, 3 μ m
300	1mm ID x 5cm, 5 μ m
600	1mm ID x 10cm, 5 μ m
4,000	1mm ID x 15 cm, 5 μ m
6,000	1mm ID x 25cm, 5 μ m
1,000	2mm ID x 5cm, 5 μ m
2,000	2mm ID x 10cm, 5 μ m
4,000	2mm ID x 15cm, 5 μ m
6,000	2mm ID x 25cm, 5 μ m
8,000	all 4.6mm ID columns, 5 μ m
5,000	7.8mm ID x 30cm, 10 μ m
8,000	21.5mm ID x 30cm, 10 μ m

1. Min. Number of Theoretical Plates (N):

2. Asymmetry Factor (AF):

AF:	Column:
0.9 – 1.3	4.6mm ID x 25cm, 5 μ m, HR
0.9 – 1.25	all 2mm ID columns, 3 μ m
0.9 – 1.2	all 4.6mm ID columns, 3 μ m
1.0 - 2.0	1mm ID x 5cm, 1mm ID x 10cm, 5 μ m
0.7 - 1.8	1mm ID x 15 cm, 1mm ID x 25cm, all 2mm ID columns, 5 μ m

*There are no asymmetry specifications for 4.6mm ID, 5 μ m, 7.8mm ID & 21.5mm ID, 10 μ m columns