

TSK-GEL® Amide-80 Products

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

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 3µm & HR columns, 75% Acetonitrile - 25% Water for 5µm & 10µm columns																								
2. Max. Pressure:	<table border="1"> <thead> <tr> <th>Pressure:</th> <th>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 3µm columns	3MPa	1mm ID x 5cm, 5µm	6MPa	1mm ID x 10cm, 5µm	9MPa	1mm ID x 15 cm, 5µm	12MPa	1mm ID x 25cm, 5µm	4MPa	2mm ID x 5cm, 5µm	8MPa	2mm ID x 10cm, 5µm	10MPa	2mm ID x 15cm, 5µm	15MPa	2mm ID x 25cm & all 4.6mm ID columns (including HR), 5µm	7MPa	7.8mm ID x 30cm, 10µm	3MPa	21.5mm ID x 30cm, 10µm
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3. pH Range:	2.0 - 7.5																								
4. Organic Conc.:	3µm: 0 - 100% polar and nonpolar (switch to 95% acetonitrile before switching to 100% nonpolar solvents) 5µm, including HR, & 10µm: *0 - 100% polar and nonpolar (*switch to 100% acetonitrile before switching to 100% nonpolar solvents)																								
5. Temperature:	3µm: 10 - 50°C 5µm, including HR, & 10µm: 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.																								

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Tosoh Bioscience LLC
156 Keystone Drive
Montgomeryville, PA 18936
Phone: (215) 283-5000
Orders & Technical Service: (800) 366-4875
FAX: (215) 283-5035



MD Scientific is authorized distributor
in Denmark for Tosoh Bioscience
www.md-scientific.dk
info@md-scientific.dk
Tel. 7027 8565

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

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

2. Asymmetry Factor (AF):

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

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