

## Aqueous GFC Columns for the Separation of Polymers, Proteins and Peptides

- Highly hydrophilic synthetic polymer phase
- Suitable for water-soluble polymers
- Very low nonspecific interaction with the separation matrix
- Extremely cost-effective
- High efficiencies
- Good mechanical strength
- Stainless steel and metal-free hardware available

The PolySep material undergoes rigorous quality control tests, from the initial stages of testing of the starting monomers to the final product. There are at least 25 steps of quality assurance during the entire procedure. The packed column then undergoes at least five additional tests, including a batch test for the manufactured materials. Each column is then tested for column efficiency and peak symmetry and shipped with the QC chromatogram for batch test as well as column test. This ensures long-lasting columns with very high efficiencies.

### ORDERING INFORMATION

Stainless Steel Columns (mm):		
	Analytical	Guards
<b>PolySep-GFC-P Phases</b>	<b>300 x 7.8</b>	<b>35 x 7.8</b>
1000	00H-3141-K0	03Q-3248-K0
2000	00H-3142-K0	03Q-3248-K0
3000	00H-3143-K0	03Q-3248-K0
4000	00H-3144-K0	03Q-3248-K0
5000	00H-3145-K0	03Q-3248-K0
6000	00H-3146-K0	03Q-3248-K0
Linear	00H-3147-K0	03Q-3248-K0



See p. 95 for additional GFC Columns.



See p. 343 for full line of Polymer Calibration Standards.



See p. 345 for HPLC Column Chiller/Heater System (8-70 °C).

### PolySep-GFC-P Technical Data and Specifications

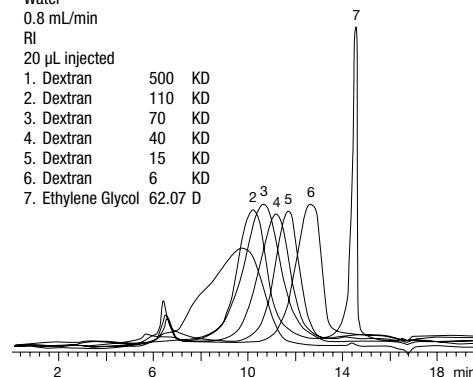
	Phase:						
	1000	2000	3000	4000	5000	6000	Linear
Exclusion Limits in Daltons:							
PEG	2 x 10 <sup>3</sup>	9 x 10 <sup>3</sup>	5 x 10 <sup>4</sup>	2 x 10 <sup>5</sup>	2 x 10 <sup>6</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>
Pullulans	3.5 x 10 <sup>3</sup>	1 x 10 <sup>4</sup>	1 x 10 <sup>5</sup>	3.5 x 10 <sup>5</sup>	4 x 10 <sup>6</sup>	2 x 10 <sup>7</sup>	2 x 10 <sup>7</sup>
Separation Range (Da)	20 - 3 K	100 - 10 K	250 - 75 K	3K - 400 K	50K - 2 M	100K - 15 M	1 K - 10 M
Typical Efficiency Plates/meter	22,000	50,000	32,000	32,000	32,000	32,000	32,000
Maximum Organic Modifier:							
Methanol	20 %	95 %	70 %	70 %	70 %	70 %	70 %
Acetonitrile	20 %	70 %	70 %	70 %	70 %	70 %	70 %
pH Range	3.0 to 12.0						
Maximum Flow Rate	Depends on backpressure, do not exceed 650 psi						
Column Hardware	Stainless steel or PEEK (Biocompatible hardware available upon request)						
Temperature	4 to 60 °C						
Maximum Salt	Maximum allowed 0.5 M with a flow rate not to exceed 0.5 mL/min						
Storage	For overnight, pump water at 0.2 mL/min, for longer storage use 0.05 % Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> in water						
General	A guard column is recommended to improve column life						

App ID 5452

### Dextran

**Column:** PolySep-GFC-P4000  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-3144-K0  
**Mobile Phase:** Water  
**Flow Rate:** 0.8 mL/min  
**Detection:** RI  
**Sample:** 20 µL injected

1. Dextran 500 KD
2. Dextran 110 KD
3. Dextran 70 KD
4. Dextran 40 KD
5. Dextran 15 KD
6. Dextran 6 KD
7. Ethylene Glycol 62.07 D



App ID 5454

### Polyethylene Oxide/Polyethylene Glycol

**Column:** PolySep-GFC-P3000  
**Dimensions:** 300 x 7.8 mm  
**Part No.:** 00H-3143-K0  
**Mobile Phase:** Water  
**Flow Rate:** 0.8 mL/min  
**Detection:** RI  
**Sample:** Five mg each of the following dissolved in 1 mL water and 10 µL injected.

1. Polyethylene oxide (PEO) 62.6 KD
2. Polyethylene oxide (PEO) 31.1 KD
3. Polyethylene glycol (PEG) 19.7 KD
4. Polyethylene glycol (PEG) 6.8 KD
5. Polyethylene glycol (PEG) 3.4 KD
6. Polyethylene glycol (PEG) 1.5 KD
7. Ethylene Glycol (EG) 62.07 D

