Column Selection:

Benson Polymeric offers a wide variety of columns for the analysis of carbohydrates. All of our columns are packed with polymeric materials specifically designed to maximize your separation needs. Benson Polymeric columns utilize a variety of separation mechanisms that allow carbohydrates to be separated without the need of gradients. By altering the ionic form of our polymers (calcium, lead, sodium, silver, and potassium) specific carbohydrate mixtures can be separated (see Applications section) by simply using water as your mobile phase.

Another technique Benson Polymeric uses to maximize your separation is to offer a range of cross-linked polymers (see Polymer Description). The degree of cross-linkage determines the porosity of the polymers which can be used to enhance certain separations. Benson Polymeric recommends using column ovens in combination with our columns since the best separations are usually obtained at elevated temperatures (typical range 30 – 90° Celsius).

Column Description:

Benson Column Description	Benson Part Number	Column Size (mm)	Ionic Form	Particle Size (um)	Mobile Phase
BP-100 Ca	1000-0	300 x 7.8	Calcium	9	Water
BP-100 Ca	1040-0	250 x 4.0	Calcium	9	Water
BP-100 Ca	1070-0	300 x 6.5	Calcium	9	Water
BP-200 Ca	1500-0	300 x 7.8	Calcium	16	Water
BP-200 Na	1550-0	300 x 7.8	Sodium	16	Water
BP-200 Ag	1600-0	300 x 7.8	Silver	16	Water
BP-100 Pb	1200-0	300 x 7.8	Lead	9	Water
BP-800 Ca	8000-0	300 x 7.8	Calcium	9	Water
BP-800 K	8300-0	300 x 7.8	Potassium	9	Water
BP-800 Na	8700-0	300 x 7.8	Sodium	9	Water
BP-800 Pb	8200-0	300 x 7.8	Lead	9	Water
BP-100 Ca Guard	1000-2	50 x 4.6	Calcium	16	Water
BP-100 Pb Guard	1200-2	50 x 4.6	Lead	16	Water
BP-100 K Guard	1300-2	50 x 4.6	Potassium	16	Water
BP-100 Ag Guard	1400-2	50 x 4.6	Silver	16	Water
BP-100 Na Guard	1700-2	50 x 4.6	Sodium	16	Water

Benson polymeric

During the past 35 years, as Benson Company and Benson Polymeric, Inc., we have provided premium column packing materials and pre-packed columns to the major chromatography equipment manufacturers and supply distributors in the industry as well as direct sales through dealers. The primary objective of our company is to provide the highest quality products and technical services to our customers.

Benson's sole focus is to provide high quality polymeric products. We are able to offer a complete line of columns at competitive pricing. Not only can we reduce your analysis costs, we also provide quick and knowledgeable service to our customers.

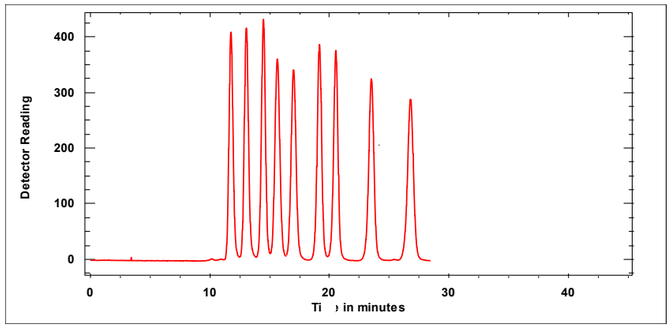
Column Comparison Chart:

The chart below lists the typical types of standards that can be separated on Benson Polymeric columns. For specific recommendations on the column best suited to maximize your particular sample please do not hesitate to contact the support staff at Benson Polymeric.

Benson Column Description	Benson Part Number	Bio-Rad (Aminex) Part Number	Phenomenex (Rezex) Part Number	Varian (Metacarb) Part Number	Trans-genomic Part Number	Waters/Hamilton/ Alltech Part Number	Shodex Part Number
BP-100 Ca	1000-0						
BP-100 Ca	1040-0	125-0094		A5092	CHO-99-8453	Hamilton 79431	MN-431
BP-100 Ca	1070-0				CHO-99-9753	Waters WAT085188 Alltech 70057	
BP-200 Ca	1500-0	125-0096				Hamilton 79432	
BP-200 Na	1550-0		00P-0137-NO		CHO-99-9850		
BP-200 Ag	1600-0	125-0097	00P-0133-NO	A5223	CHO-99-9851		
BP-100 Pb	1200-0				CHO-99-9854		
BP-800 Ca	8000-0				CHO-99-9855		
BP-800 Ca	8000-0	125-0095	00H-0130-KO	A5200	CHO-99-9860	Hamilton 79436	F6378102
BP-800 K	8300-0	125-0142	00H-3252-KO	A5095	CHO-99-9862		
BP-800 Na	8700-0	125-0143	00H-0136-KO	A5041	CHO-99-9863		F6378010
BP-800 Pb	8200-0	125-0098	00H-0135-KO	A5241	CHO-99-9864	Hamilton 79476	F6378105
BP-100 Ca Guard	1000-2			A5201 & A5206	CHO-99-3560		
BP-100 Pb Guard	1200-2			A5221	CHO-99-3564		
BP-100 K Guard	1300-2						
BP-100 Ag Guard	1400-2						
BP-100 Na Guard	1700-2						F6700020

Carbohydrate Analysis:

Many carbohydrate samples can be separated using calcium form columns (BP-100 Ca and BP-800 Ca). A typical sample separation on the BP-100 Ca column is shown below.



Eluent: *DI H_2O*
Flow Rate: *0.4 mL/min*
Pressure: *250 psi*
Detection: *RI*
Temperature: *80°C*
Sample Size: *20 uL, 30 mg/ml*

Sample:
1 - Maltotriose
2 - Maltose
3 - Lactulose
4 - Glucose
5 - Xylose
6 - Arabinose
7 - Ribitol
8 - Arabitol
9 - Xylitol