



DOWEX™ MONOSPHERE™ 99 Ca/320

Separation Resin for Chromatographic Separations (Primarily Sugars and Sugar Alcohols)

Product	Type	Matrix	Functional group
DOWEX™ MONOSPHERE™ 99 Ca/320	Strong acid cation	Styrene-DVB, gel	Sulfonate

Typical Physical and Chemical Properties

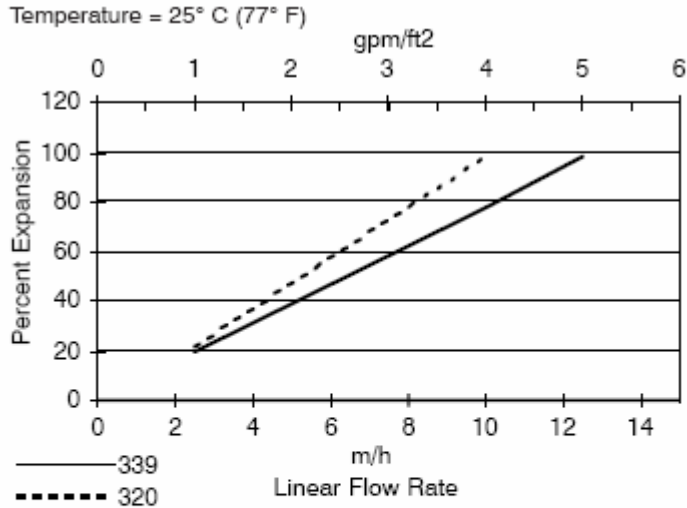
Ionic form as delivered			Ca ⁺⁺
Total capacity, min.		eq/L	1.5 (H ⁺ form)
Water content		%	57 - 61 (H ⁺ form)
Whole uncracked beads, min.		%	98
Particle density		g/mL	1.27
Apparent bulk density:**			
Backwashed, settled and drained		g/L lbs/ft ³	770 - 820 48 - 51
Tapped and settled		g/L lbs/ft ³	785 - 850 49 - 53

Bead Size Distribution (Light Obscuration Instrument Particle Size)

		Microns
Volume median diameter		300 - 330
Broad range	min. 90%	285 - 350
Narrow range	min. 75%	300 - 335
Fine fines	max. 1%	< 260
Coarse fines	max. 4%	< 280
Fine coarse	max. 4%	> 380
Coarse coarse	max. 1%	> 450

** As per the backwashed and settled density of the resin, determined by ASTM D-2187.

Figure 1. Backwash Expansion Data

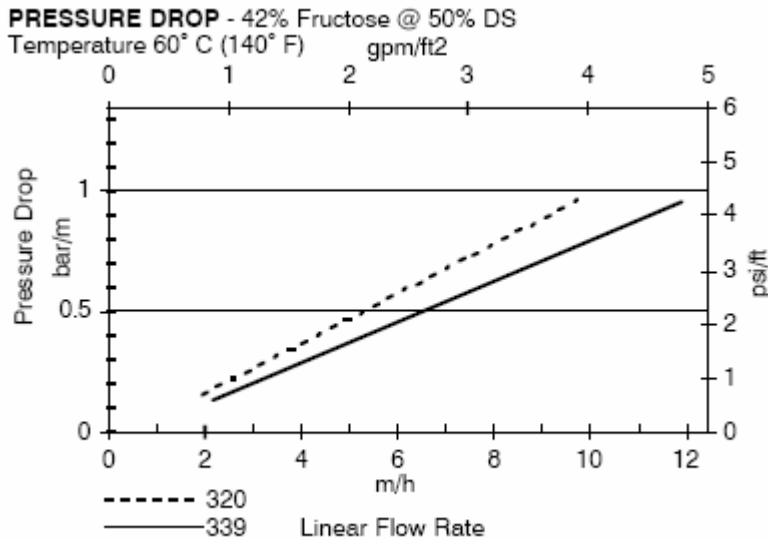


For other temperatures use:

$$F_T = F_{77°F} [1 + 0.008 (T_F - 77)], \text{ where } F \equiv \text{gpm/ft}^2$$

$$F_T = F_{25°C} [1 + 0.008 (1.8T_C - 45)], \text{ where } F \equiv \text{m/h}$$

Figure 2. Pressure Drop Data



DOWEX™ Ion Exchange Resins

For more information about DOWEX resins, call the Dow Water Solutions business:

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Warning: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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