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DOWEX™ MONOSPHERE™ C-350

Uniform Particle Size, Strong Acid Cation Exchange Resin for Applications with High Salt Efficiency

Product	Type	Matrix	Functional group
DOWEX™ MONOSPHERE™ C-350	Strong acid cation	Polystyrene-DVB, gel	Sulfonic acid

Guaranteed Sales Specifications		Na^+ form
Total exchange capacity, min.	eq/L	2.2
	kgr/ft^3 as $CaCO_3$	48.2
Water content	%	38 – 45
Bead size distribution		
Mean particle size	µm	350 ± 50
Uniformity coefficient, max.		1.1
< 200 µm, max.	%	0.5

Typical Physical and Chemical Properties		Na^+ form
Whole uncracked beads	%	95 - 100
Particle density	g/mL	1.30
Shipping weight**	g/L	830
	lbs/ft^3	51
Total swelling ($Ca^{++} \rightarrow Na^+$)	%	4

Recommended Operating Conditions

- Maximum operating temperature: 130°C (265°F)
- pH range: 0 - 14
- Bed depth, min.: 200 mm (0.7 ft)
- Flow rates:
  - Service/fast rinse: 5 - 200 m/h (2 - 80 gpm/ft^2)
  - Backwash: See Figure 1
  - Regeneration/displacement rinse: 5 - 20 m/h (2 - 8 gpm/ft^2)
- Total rinse requirement: 2 - 5 Bed volumes
- Regenerant:
  - Type: 5 - 25% NaCl

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

Typical Properties and Applications

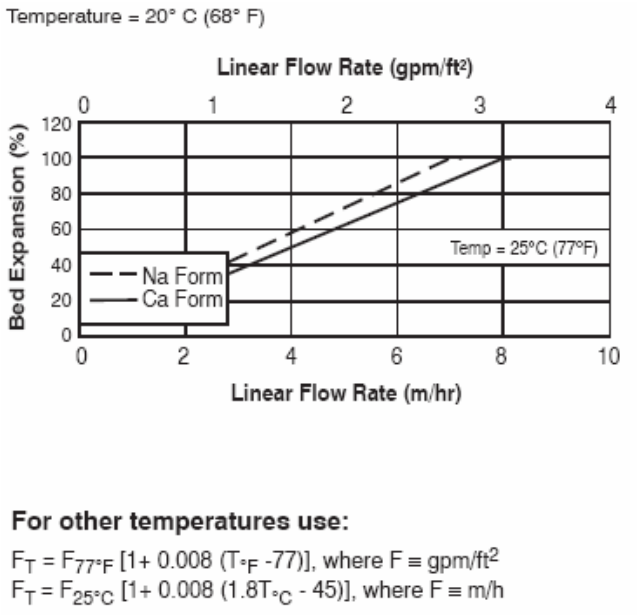
DOWEX™ MONOSPHERE™ C-350 resin is a uniform particle size gel cation resin. The small beads yield an outstanding operating capacity, which in turn results in a high regeneration efficiency.

DOWEX MONOSPHERE C-350 resin has excellent mechanical strength and very good stability to oxidation.

Packaging

25 liter bags or other packaging upon request

Figure 1. Backwash Expansion Data

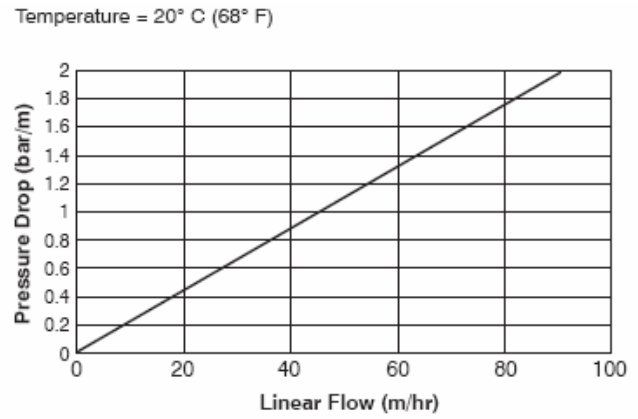


For other temperatures use:

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

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

Figure 2. Pressure Drop Data



For other temperatures use:

$P_T = P_{20°C}$ / (0.026 $T_{°C}$ + 0.48), where P ≡ bar/m

$P_T = P_{68°F}$ / (0.014 $T_{°F}$ + 0.05), where P ≡ psi/ft

Note: These resins may be subject to drinking water application restrictions in some countries: please check the application status before use and sale.