

**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
		kg/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 ⁺⁺ → 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.

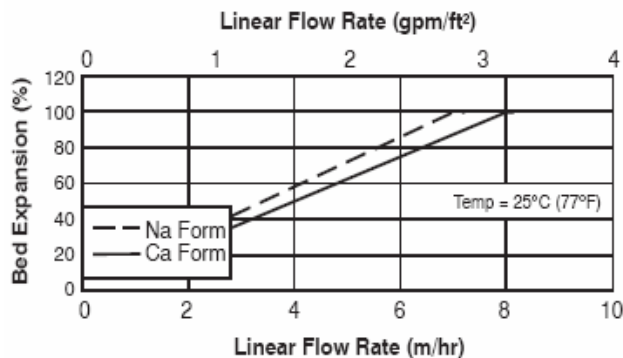
DOWEX MONOSPHERE C-350 resin has excellent mechanical strength and very good stability to oxidation.

Packaging

25 liter bags or other packaging upon request

Figure 1. Backwash Expansion Data

Temperature = 20° C (68° F)



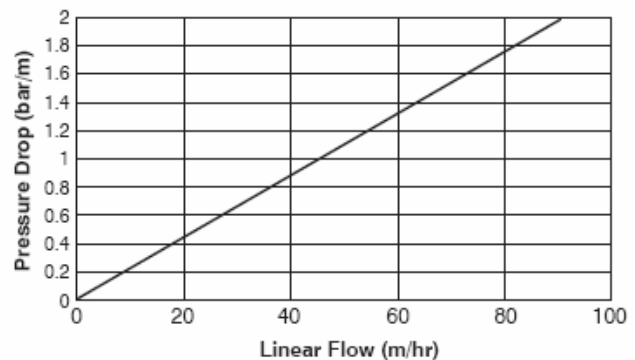
For other temperatures use:

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

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

Figure 2. Pressure Drop Data

Temperature = 20° C (68° F)



For other temperatures use:

$$P_T = P_{20°C} / (0.026 T_C + 0.48), \text{ where } P \equiv \text{bar/m}$$

$$P_T = P_{68°F} / (0.014 T_F + 0.05), \text{ where } P \equiv \text{psi/ft}$$

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

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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