

**DOWEX C-75 NG (H)**

A Macroporous Strong Acid Cation Exchange Resin for Nuclear Water Applications

Product	Type	Matrix	Functional group
DOWEX™ C-75 NG (H)	Strong acid cation	Styrene-DVB, macroporous	Sulfonic acid

Guaranteed Sales Specifications				H ⁺ form		
Total exchange capacity, min.		eq/L	1.7			
		kg/ft ³ as CaCO ₃	37.1			
Water content		%	50 - 56			
Bead size distribution†						
> 1,200 μm, max. (16 mesh)		%	3			
< 300 μm, max. (50 mesh)		%	0.2			
Whole beads, min.		%	95			
Ionic conversion, min.		%	99.7			
Trace metals, ppm dry resin, max.						
Na	Fe	Cu	Al	Co	Pb	Hg
60	100	30	50	30	30	20

Typical Physical and Chemical Properties		H ⁺ form
Particle density	g/mL	1.20
Shipping weight	g/L	750
	lbs/ft ³	47

Recommended Operating Conditions

- Maximum operating temperature 150°C (300°F)
- pH range 0 - 14
- Bed depth, min.:
 - Mixed bed 450 mm (1.5 ft)
 - Single bed 800 mm (2.6 ft)

† For additional particle size information, please refer to Particle Size Distribution Cross Reference Chart (Form No. 177-01775)

Typical Properties and Applications

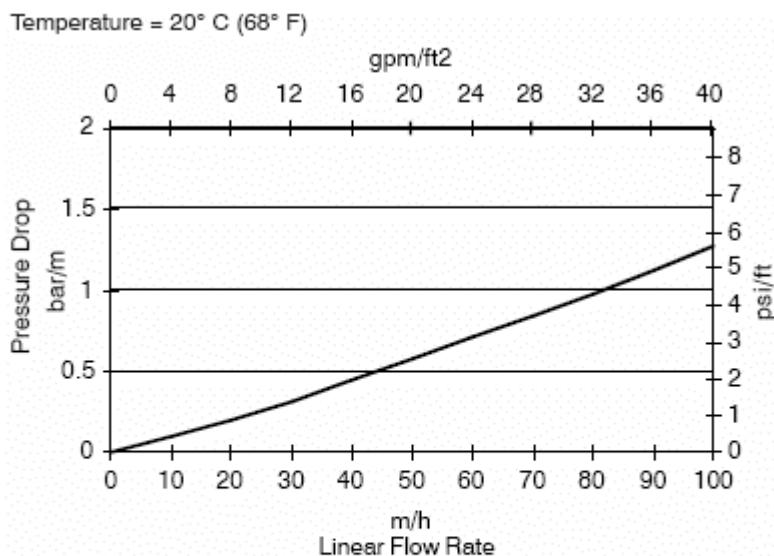
DOWEX C-75 NG (H) strong acid cation exchange resin is a macroporous resin with excellent physical and chemical stability. It is supplied with a minimum of 99.7% of ionic sites in the H⁺ form and a low level of impurities. DOWEX C-75 NG (H) resin exhibits outstanding selectivity for Cs and Co isotopes resulting in high decontamination factors for these species.

It is available as a mixed bed resin together with DOWEX SBR LC NG (OH) anion exchange resin as DOWEX MR-72 LC NG.

Packaging

50 liter or 5 cubic foot drums

Figure 1. Pressure Drop Data



For other temperatures use:

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

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

DOWEX Ion Exchange Resins

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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