

**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 <sup>+</sup> form					
Total exchange capacity, min.		eq/L					1.7
		kgr/ft <sup>3</sup> as CaCO <sub>3</sub>					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 <sup>+</sup> form	
Particle density	g/mL	1.20	
Shipping weight	g/L	750	
	lbs/ft <sup>3</sup>	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<sup>+</sup> 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.

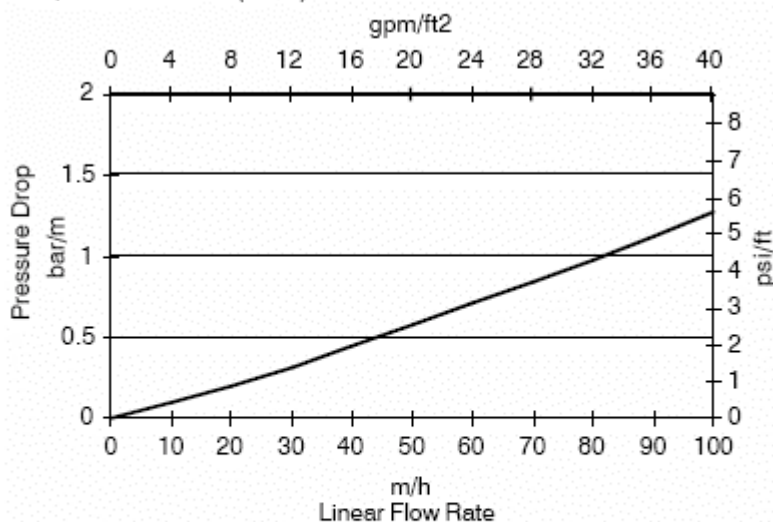
It is available as a mixed bed resin together with DOWEX SBR LC NG (OH) anion exchange resin as DOWEX MR-72 LC NG.

## Packaging

50 liter or 5 cubic foot drums

## Figure 1. Pressure Drop Data

Temperature = 20° C (68° F)



### 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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