

**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
		kgr/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.

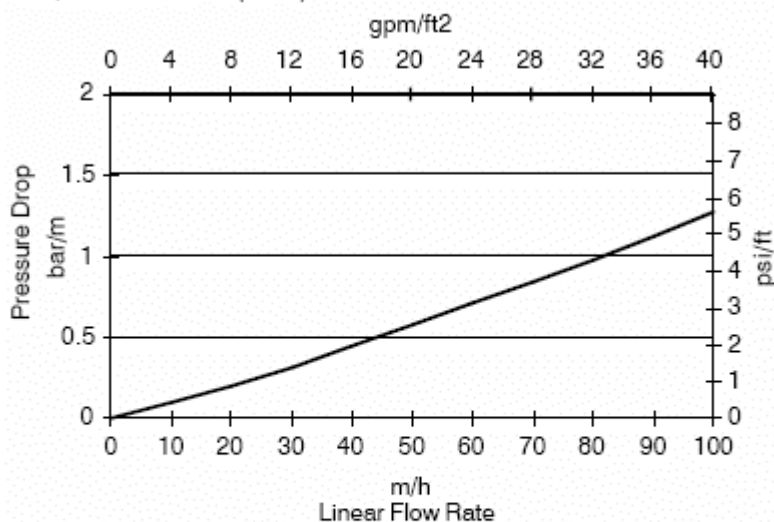
It is available as a mixed bed resin together with DOWEX SBR LC NG (OH) anion exchange resin as DOWEX MR-72 LC NG.

Packaging

50 liter or 5 cubic foot drums

Figure 1. Pressure Drop Data

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.

Notice: No freedom from any patent owned by Seller or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Seller assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

