



AMBERLITE™ IRN217 Resin Li⁷/OH Nuclear Grade Mixed Bed Resin

For the Power Industry

Description

AMBERLITE™ IRN217 is a high purity mixed bed resin of uniform particle size gel polystyrene cation and anion exchange resins. It is supplied as a stoichiometric equivalent mixture of a fully converted strong acid cation resin in the Lithium (Li⁷) form, together with a strong base anion exchange resin in OH form.

The resin exhibits high capacity and excellent resistance to bead fracture from attrition and osmotic shock.

AMBERLITE IRN217 is designed to be used in primary water chemistry control in PWR nuclear power operations.

Typical Physical and Chemical Properties

Physical form		Uniform particle size spherical beads	
Matrix		Styrene divinylbenzene copolymer	
		Cation resin	Anion resin
Functional group		Sulphonic acid	Trimethylammonium
Ionic form as shipped		⁷ Li ⁺ form	OH ⁻ form
Total volume capacity, min.	eq/L kgr/ft ³ as CaCO ₃	1.75 38.2	1.2 26.2
Strong base capacity, min.	%	—	90
Moisture retention capacity	%	43–51	54–60
Particle size			
Harmonic mean diameter	mm	0.65 ± 0.05	0.630 ± 0.05
Uniformity coefficient, max.		1.2	
< 0.300 mm, max.	%	0.2	
Whole beads, min.	%	98	
Ionic conversion, min. [1]	%	99	95
CO ₃ ²⁻ max.	%	—	5
Cl ⁻ max.	%	—	0.1
SO ₄ ²⁻ max.	%	—	0.1
Shipping density**		g/L lbs/ft ³	690 43

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

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

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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.

DOW™ Ion Exchange Resins For more information about DOW™ resins, call the Dow Water & Process Solutions business:

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