

USF NR-57LC NUCLEAR GRADE MIXED BED RESIN

Description:

USF NR-57LC is a 1:1 equivalent mix of USF C-471SG H and USF A-254PSSG OH. USF C-471SG H is a 16% cross linked uniform particle size strong acid gel cation exchange resin consisting of a sulfonated polymer matrix of styrene and divinylbenzene. USF A-254PSSG OH is a uniform particle size Type I porous strong base gel anion resin consisting of a styrene divinylbenzene polymer matrix functionalized with a quaternary amine.

Chemical Properties

Functional Groups	Sulfonic Acid, Trimethylamine
Ionic Form (as shipped)	Hydrogen / Hydroxide mix
Moisture Content	42% max. (H form cation) / 60% max. (OH form anion)
Exchange Capacity	2.4 meq / ml min. (H form cation) / 1.0 meq / ml min. (OH form anion)
Kinetics	> 17 megohm (Siemens Kinetics Test)
Conversion	
Cation	99% minimum (H form)
Anion	94% minimum (OH form)
Impurities:	
Chloride (Cl)	≤ 0.2%
Sulfate (SO ₄)	≤ 0.2%
Friability	
Mean	≥ 350 gm / bead
% > 200	95% minimum

Physical Properties

Particle Screen Sizing	
+ 16 Mesh	2% maximum
- 50 Mesh	0.2% maximum
Particle Size	525 ±50 um (Cation), 590 ±50 um (Anion)
Whole Beads (%)	95 minimum
Shipping Weight	44 lbs. / ft ²

Operating Conditions

Operating pH Range	1 to 14
Service Flow Rate	
Demineralization	1-6 GPM/ft ²
Condensate Polishing	1-65 GPM/ft ² (dependent on operating conditions and performance expectations)
Maximum Operating Temperature	140°F