

USF C-373 MEG (H) CATION RESIN

Description:

USF C-373 MEG (H) is a uniform particle size 10% cross-linked gel strong acid cation exchange resin consisting of a sulfonated polymer matrix of styrene and divinylbenzene supplied in the hydrogen form. The resin has a high exchange capacity, excellent stability at elevated temperatures, and superior resistance to oxidizing agents. The resin is typically used in mixed bed applications in which extremely low cross contamination is required and is analyzed kinetically to ensure the capability of producing 18 megohm mixed bed deionized water. This resin is specially processed to be low in TOC leachables.

Chemical Properties

Functional Group	Sulfonic Acid
Ionic Form (as shipped)	Hydrogen
Moisture Content	46 to 51% (H form)
Exchange Capacity	1.9 meq / ml minimum (H form)
Kinetics	18 megohm (Siemens Kinetics Test)
Conversion to Hydrogen Form	99% minimum
Impurities	
Sodium (Na)	50 ppm maximum
Iron (Fe)	50 ppm maximum
Copper (Cu)	10 ppm maximum
Aluminum (Al)	50 ppm maximum
Lead (Pb)	10 ppm maximum
16 Hr. Soak TOC	< 5 ppm
Dynamic TOC @ 15 Bed Volumes	< 10 ppb maximum as a mix with low TOC resin
UV Sulfate	< 1 ppm

Physical Properties

Particle Screen Sizing	
+ 16 Mesh	2% maximum
- 50 Mesh	0.2% maximum
Mean Size	600 to 700 microns
Whole Beads (%)	95 minimum
Friability	500 gm / bead average 95% minimum > 200 g/bead
Swelling	Approximately 6% sodium to hydrogen form
Shipping Weight	50 lbs. / cu. ft.

Operating Conditions

Operating pH Range	1 to 14
Regenerant Flow Rate	0.5 to 1.0 gpm / cu. ft.
Rinse Flow Rate	0.5 to 1.0 gpm / cu. ft.
Maximum Operating Temperature	250°F