

USF NR-63RLS MIXED BED RESIN

Description:

USF NR-63RLS is a 1:1 chemical equivalent mix of USF C-471RLS H and A-284RLS OH. USF C-471RLS H is a 16% cross-linked strong acid cation exchange resin that is manufactured from polystyrene and is cross-linked with divinylbenzene. C-471 RLS H is a gel cation with a dark color which is easily distinguished from USF A-284 RLS OH in the mix. A-284RLS OH is a strong base Type I gel anion resin consisting of a styrene divinylbenzene matrix with an amber color. C-471RLS H and A-284RLS OH are produced using selected starting resins meeting USFilter specifications and are processed to have very low TOC leachables and dynamic sodium levels for use in the nuclear industry.

Chemical Properties

Functional Groups	Sulfonic Acid, Trimethylamine
Ionic Form (as shipped)	Hydrogen / Hydroxide mix
Moisture Content	42% max. (H form cation) / 48% max. (Cl form anion)
Exchange Capacity	2.4 meq / ml min. (H form cation) / 1.2 meq / ml min. (OH form anion)
Kinetics	18 megohm (Siemens Kinetics Test)
Conversion:	
Cation	99% minimum (H form)
Anion	94% minimum (OH form)
Impurities	
TOC (15 bed volumes of rinse)	≤10 ppb maximum above the influent
Sodium (15 bed volumes)	≤20 ppt maximum above the influent
Metals (15 bed volumes of rinse)	Low ppt levels (feedwater dependent)

Physical Properties

Particle Screen Sizing	
+ 16 Mesh	5.0% maximum
- 50 Mesh	0.5% maximum
Whole Beads (%)	95 minimum
Shipping Weight	48 lbs. / cu. ft.
Bead Strength (friability)	350 gm / bead (minimum)

Operating Conditions

Operating pH Range	1 to 14
Service Flow Rate	1 to 4 gpm / cu. ft.
Maximum Operating Temperature	140°F