PUROLITE
ION EXCHANGE RESINS

NRW - 56

Non-Separable Mixed Bed Resin

Technical Data

Product Description

Purolite's nuclear grade resins are processed to the most demanding specifications. **NRW-56** is a non-separable mixed bed used for polishing in high purity loops. **NRW-56** is manufactured specifically for use in non-regenerable high purity demineralizer systems. The cation and anion resins are specially processed in order to eliminate any separation during loading, transfer, and service flow. This resin may be used over an extended period of time.

During the manufacturing process for **NRW-56** the components are regenerated and thoroughly rinsed with a high quality water prior to the mixing of the resins. Components of **NRW-56** are **NRW-100x10**, a strong acid cation, and **NRW-600**, a strong base type I anion. These resins are blended to a 1:1 chemical equivalent ratio or as desired by the customer.

NRW-56, when used in non-regenerable high purity system, will have a high capacity and good kinetics over its long life.

Typical Physical and Chemical Characteristics			
Cation		Hydrogen form sulfonated polystyrene copolymer	
Anion		Hydroxyl form strong base alkyl quaternary ammonium polystyrene copolymer	
Ratio Cation: Anion		1:1 Chemical equivalent	
Physical Appearance		Amber Spherical Beads	
Ionic Form Shipped		H^+ / OH^-	
Screen Size, % by Volume	< 425 microns > 850 microns	2 max. 10 max.	
Conversion, %	Cation	99% min. H^+	
	Anion	95% min. OH^- 0.1% max. Cl^- 0.2% max. SO_4^{--}	
Impurities, ppm (as is basis)	Sodium, Na Iron, Fe Heavy Metals	25 max 25 max 50 max.	
pH Stability		0 - 14	
Differential Pressure Drop (for varying flow rates at 10°C / 50°F)		15 gpm/sq. ft. 25 gpm/sq. ft. 35 gpm/sq. ft.	1 psi 2.2 psi 3.6 psi
Mass Transfer Coefficient(based on Sulfate)		>2.5 x 10^{-4} m/sec.	