

PRODUCT DATA SHEET

Purolite™ CriticalResin™ NRW5010XLC

Polystyrenic Macroporous, Type I
Strong Base Anion Resin, Hydroxide
form, High Porosity, Extra Low
Chloride, Nuclear Grade

PRINCIPAL APPLICATIONS

- Anion overlay
- Primary coolant polishing
- High Boron and Lithium coolant

ADVANTAGES

- Minimal chloride release
- Very fine colloid removal

* Shelf life of 12 months

SYSTEMS

- CVCS online bed

TYPICAL PACKAGING

- 1 CF Box
- 5 ft³ Drum (Fiber)

TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:

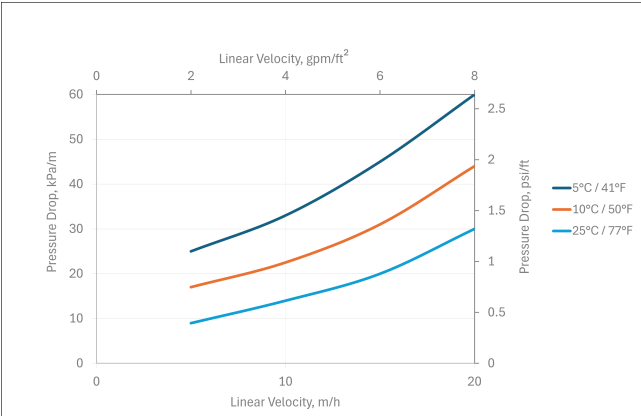
Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical Beads
Functional Group	Type I Quaternary Ammonium
Ionic Form	OH ⁻ form
Total Capacity (min.)	0.4 eq/L (8.7 Kgr/ft³) (OH ⁻ form)
Moisture Retention	67 - 75 % (Cl ⁻ form)
Particle Size Range	425 - 1200 µm
< 425 µm (max.)	2 %
Uniformity Coefficient (max.)	1.8
Conversion (min.)	95 % (OH ⁻ form)
Anionic Form, CO ₃ ²⁻ (max.)	5 %
Anionic Form, SO ₄ ²⁻ (max.)	0.3 %
Anionic Form, Cl ⁻ (max.)	0.05 %
Impurities Iron (max.)	50 ppm
Impurities Sodium (max.)	20 ppm
Impurities Heavy Metals (max.)	30 ppm
Shipping Weight (approx.)	590 - 630 g/L (36.9 - 39.4 lb/ft³)
Temperature Limit, Non-Regenerable Bed	100 °C (212.0 °F) (OH ⁻ form)
Temperature Limit, Regenerable Bed	60 °C (140.0 °F) (OH ⁻ form)
Linear Velocity	It is recommended not to exceed a linear flow of 20 m/h due to the special characteristics of the product.

Hydraulic Characteristics

PRESSURE DROP

The pressure drop across a bed of ion exchange resin depends on the particle size distribution, bed depth, and voids volume of the exchange material, as well as on the flow rate and viscosity of the influent solution. Factors affecting any of these parameters—such as the presence of particulate matter filtered out by the bed, abnormal compressibility of the resin, or the incomplete classification of the bed—will have an adverse effect, and result in an increased head loss. Depending on the quality of the influent water, the application and the design of the plant, service flow rates may vary from 10 to 40 BV/h.

PRESSURE DROP ACROSS RESIN BED



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