

# PURE RESIN PC002

- REF. RA300;
- Gel Strong Acid Cation Exchange Resin;
- light coloured;
- gel type sulfonated polystyrene cation resin supplied in the sodium form as moist, tough uniform spherical beads.
- well suited for industrial, commercial or residential softening applications where free chlorine is not present because of its high capacity and good physical stability.
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- NSF/ANSI 44&61 certified.



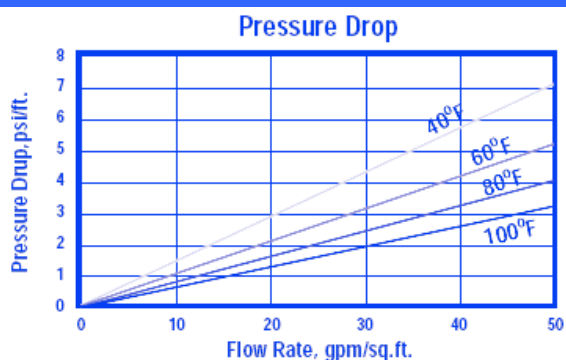
## Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Polystyrene crosslinked with 7% DVB
Functional Group	R-(SO <sub>3</sub> ) <sup>-</sup> M <sup>+</sup>
Ionic Form, as shipped	Sodium (Na <sup>+</sup> )
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range --- U.S. Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Na <sup>+</sup> form	45 ÷ 50%
Swelling Na <sup>+</sup> → H <sup>+</sup> Ca <sup>2+</sup> → Na <sup>+</sup>	10% max. 5% max.
Shipping Weight, Na <sup>+</sup> form	770 ÷ 870 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na <sup>+</sup> form	1,9 eq/l min.
pH Range	0 ÷ 14

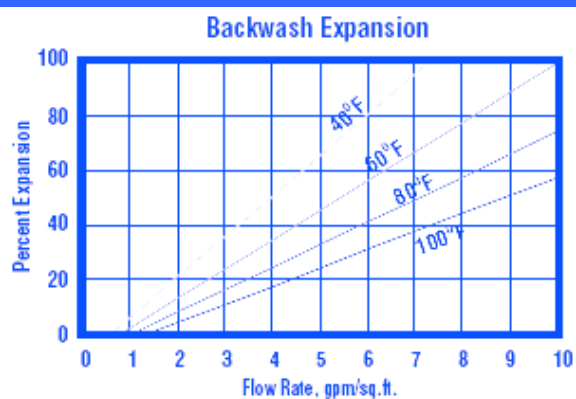
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Suggested Operating Conditions	
Maximum Temperature Na <sup>+</sup> form H <sup>+</sup> form	120°C (248°F) max. 100°C (212°F) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% bed expansion
Regeneration Regenerant Concentration Flow Rate Contact Time	8 ÷ 20% NaCl or saturated salt water 2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft) At least 30 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1 ÷ 2 BV (7,5 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	3 ÷ 4 BV (22,5 ÷ 30 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

## Hydraulic Properties



**Pressure Drop:** The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



**Backwash:** After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC002 in the sodium form.