



ion exchange resin

Advanced **WATER** solutions

**PRC107E**

Strong Acid Cation Gel



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[www.purolex.com](http://www.purolex.com)

**Purolex PRC107E** is a high purity, premium grade, pre-washed, strong acid gel-type cation exchange resin (high purity bead form conventional gel polystyrene sulfonate cation exchange resin), designed especially for potable waters, beverages and other water processing of food.

The resin can also remove dissolved iron, manganese, and suspended materials through the filtering action of the softening bed.

In addition, it is a cost-effective product for treating any household water.

### Typical Physical and Chemical Characteristics

|                                                              |                                                             |
|--------------------------------------------------------------|-------------------------------------------------------------|
| Ionic Form as Shipped                                        | Na <sup>+</sup>                                             |
| Functional Group                                             | Sulfonic acid                                               |
| Polymer Structure                                            | Crosslinked Polystyrene Divinylbenzene                      |
| Appearance                                                   | Amber, clear spherical beads                                |
| Whole Bead Count                                             | 90% min.                                                    |
| Temperature Limit                                            | 120°C (250°F)                                               |
| Total Capacity (min.)                                        | 1.9 eq/l (41.5 Kgr/ft <sup>3</sup> ) (Na <sup>+</sup> form) |
| Total Exchange Capacity, Na <sup>+</sup> form                |                                                             |
| Swelling Na <sup>+</sup> →H <sup>+</sup>                     | 8% max                                                      |
| Ca <sup>++</sup> →Na <sup>+</sup>                            | 10% max                                                     |
| Particle Size Range                                          | 315 - 1290 µm                                               |
| Moisture Retention                                           | 45 - 50 % (Na <sup>+</sup> form)                            |
| <300 µm (max.)                                               | 1 %                                                         |
| Uniformity Coefficient (max.)                                | 1.6                                                         |
| Reversible Swelling Ca <sup>2+</sup> → Na <sup>+</sup>       | 8 %                                                         |
| Reversible Swelling, Na <sup>+</sup> → H <sup>+</sup> (max.) | 10 %                                                        |
| Specific Gravity                                             | 1.27                                                        |
| Shipping Weight (approx.)                                    | 800 - 840 g/l (50 - 52.5 lb/ft <sup>3</sup> )               |

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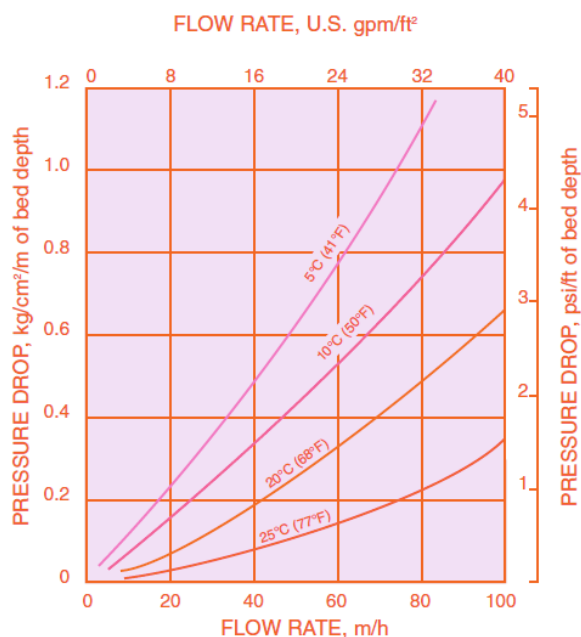
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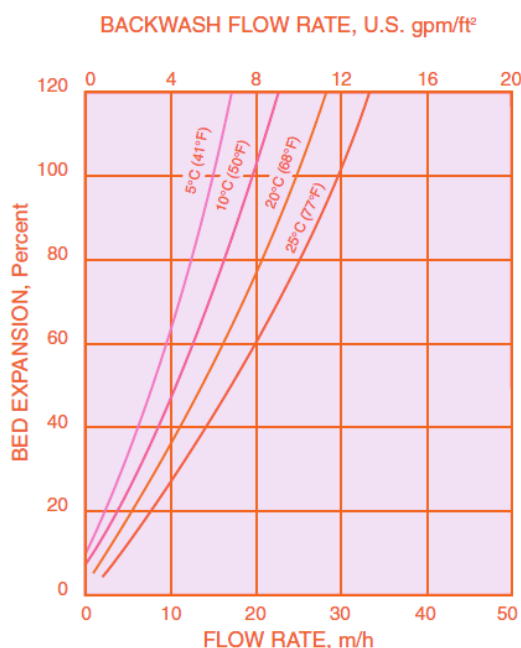
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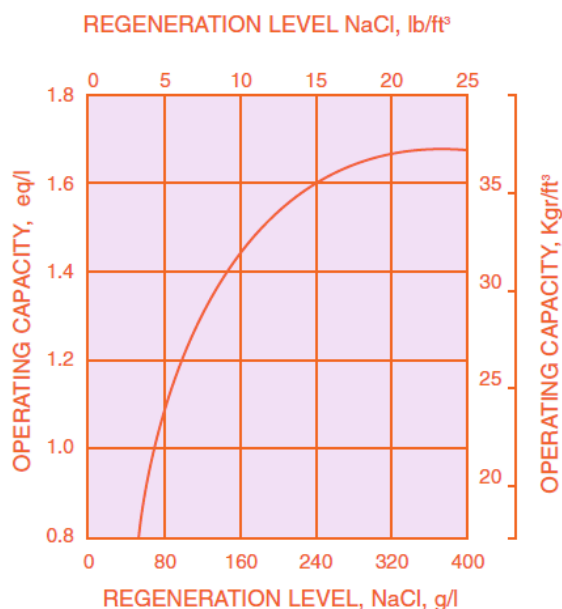
#### PRESSURE DROP VS FLOW RATE



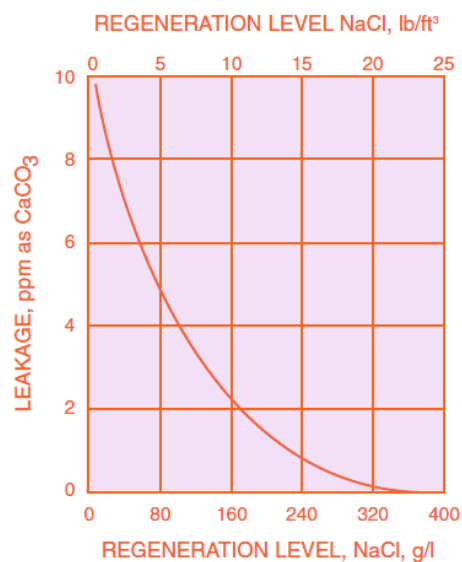
#### BACKWASH EXPANSION



#### OPERATING CAPACITY, C<sub>B</sub>



#### HARDNESS LEAKAGE



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## Advantages

- ◇ Top quality Water Softener Resin
- ◇ Pre-treated and Rinsed - Guarantees minimal color throw and eliminates taste and odor
- ◇ Efficient regeneration
- ◇ Good kinetic performance
- ◇ Suitable for all Ion exchange Water Softeners

### Standard Packaging

- ◇ 25 lit. PE valve bags
- ◇ 48 bags per pallet

### Typical Applications

- ◇ Domestic water softening
- ◇ Food and beverage processing

## Recommendations

- ◇ Water Softener Resin can be regenerated with either potassium chloride or sodium chloride salt
- ◇ Typically it requires about 10% more salt to regenerate with potassium chloride salt when compared to sodium chloride salt
- ◇ The advantage of potassium salt is that it does not contribute to a high sodium diet and the backwash can be discharged onto a lawn or garden. Sodium chloride salt will kill plants so it must be discharged into a sewer system
- ◇ Each 1 ppm of Chlorine, on a continuous basis, will reduce resin life by one half. Softening resins should have a life of 10 years or more on Chlorine free water. If you have a high Chlorine residual in the feed water, it is best to remove the Chlorine

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