



# CAT110E

## CATION RESIN



This product has been tested and certified by NSF International against NSF/ANSI Standard 44 for material requirements only.

### COMPONENT



### **Aquatrol CAT110E cation resin**

provides a high purity, premium cation resin designed for the treatment of foods, beverages, potable waters, and water used in the processing of food. Aquatrol CAT110E resin is a high grade resin which complies with the U.S. Food & Drug Administration (USFDA) CFR 21, Title 173.25 for use in the treatment of foods for human consumption.

### **Aquatrol CAT110E cation resin**

has excellent hydraulic characteristics for optimal flow rate and backwash flow rates. Its high capacity and porosity characteristic provide exceptional kinetic behavior along with good physical, chemical and thermal stability.

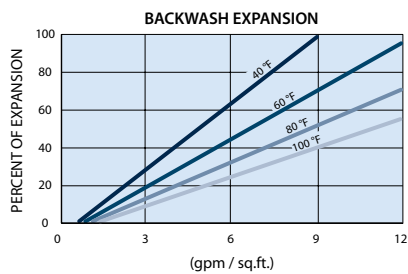
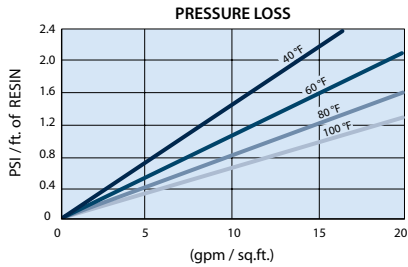
### **Chemical and thermal stability**

Aquatrol CAT110E is insoluble in dilute or moderately concentrated acids, alkalis, and in all common solvents. Thermally stable to higher than 280 °F (138 °C) in alkali's such as, sodium or alkaline earth like calcium and magnesium salt forms.

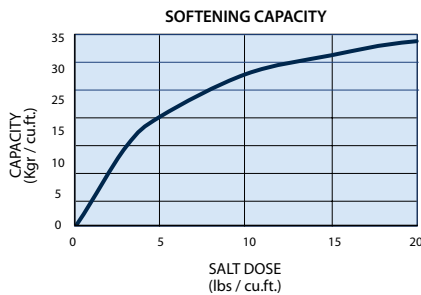
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## CATION RESIN

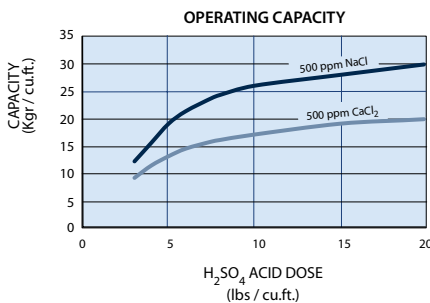
### HYDRAULIC PROPERTIES



### SOFTENING



### DEMINERALIZATION



### Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Crosslinked Polystyrene Divinylbenzene
Physical Form and Appearance	Brownish Yellow - Brown, Amber
Whole Bead Count	95% min.
Functional Groups	R-SO <sub>3</sub>
Ionic Form, as shipped	Na <sup>+</sup>
Screen Size Range - US Standard Screen	16 - 50 mesh, wet
Particle Size Range	+1.2 mm <5%, -0.3 mm <1%
Moisture Retention, Na <sup>+</sup> form	46 - 50%
Swelling Na <sup>+</sup> → H <sup>+</sup>	4 - 8%
Specific Gravity, Moist Na <sup>+</sup> Form	1.27
Total Exchange Capacity, Na <sup>+</sup> Form Wet, volumetric Dry, weight	1.9 eq/l min. 4.5 eq/kg min.
Operating Temperature, Na <sup>+</sup> Form	280 °F (138 °C)
pH Range Operating, Na <sup>+</sup> Form	0 - 14

### FLOW RATE OF REGENERATE SOLUTION

0.5 - 1.5 gpm/cu.ft.

### REGENERATE CONTACT TIME

>20 min

### RINSE FLOW RATE

1 - 10 gpm/cu.ft.

### RINSE TIME

30 min

### OPERATING FLOW RATE

1 - 10 gpm/cu.ft.

Backwash Expansion 25% to 50%  
Design Rising Space 100%  
"Gallons" refer to U.S. Gallon = 3.785 liters

### CROSSLINK

10%

### APPLICATION

This product is mainly used for softening hard water and preparing pure and high purity water. In addition, it is used in separation and purification of trace elements as well as hydro-metallurgy and pharmaceutical industry.

### INTERNATIONAL EQUIVALENTS

- Amberlite SR1L (American)
- Dowex HCR-SS (American)
- Purolite C100, C100E (England)
- Resintech CG10



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