

Purolite® C107E

Macroporous Weak Acid Cation Exchange Resin

PRODUCT DATA SHEET

Purolite C107E is a high purity, high capacity polyacrylic weak-acid cation exchanger developed to treat water for potable use. It has particularly fast kinetics combined with the high capacity. The functional groups of the carboxylic type give high chemical efficiency in many applications, especially for the removal of bicarbonate alkalinity in water treatment, showing excellent uptake of alkaline earth metals in a relatively short contact time for this type of resin. Its major use is in the dealkalization and softening of waters. The treatment produces carbon dioxide from the bicarbonates in the feed supply. This imparts a pleasant taste to the treated water, while at the same time achieving hardness reduction and a lower pH which largely eliminates the potential for scum or scale formation when using the water for domestic purposes or in the processing of food and beverages. This product has also been used to selectively recover transition metals from aqueous solutions. The resin is insoluble in acids, alkalis, and all common solvents. In fact weakly acidic cation resins are increasingly being used in special applications including treatment of waste water streams in order to reduce environmental pollution. **Purolite C107E** has excellent selectivity for heavy metals and can be used as an economic replacement for Chelating Resins in some instances, especially in the removal of trace quantities of toxic metals from waste waters.

Typical Physical and Chemical Characteristics

Application	Dealkalization - Domestic Applications -Non-regenerable
Polymer Structure	Macroporous crosslinked polyacrylic
Appearance	Spherical beads
Functional Group	Carboxylic Acid
Ionic Form as Shipped	H ⁺
Total Capacity (min.)	3.6 eq/l (78.6 Kgr/ft ³ (H ⁺ form))
Moisture Retention	53 - 58 % (H ⁺ form)
Particle Size Range	300 - 1600 µm
<300 µm (max.)	0.5 %
Reversible Swelling, H ⁺ → Ca ²⁺ (max.)	25 %
Reversible Swelling, H ⁺ → Na ⁺ (max.)	90 %
Specific Gravity	1.17
Shipping Weight (approx.)	735 - 770 g/l (45.9 - 48.1 lb/ft ³)
Temperature Limit	120°C (250°F)



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