



# C-106

**Macroporous Weak-Acid Cation-Exchange Resin**  
(FOR SPECIAL APPLICATIONS, TREATMENT OF AQUEOUS ORGANIC SOLUTIONS, AND FIXATION OF METALS)

## Technical Data

### PRODUCT DESCRIPTION

**PuroLite C-106** is an acrylic-based macroporous weak-acid cation exchanger containing carboxylic groups. This resin has been designed for use under conditions where the marked swelling from the virtually un-ionised hydrogen form to the alkaline salt form in the equivalent gel resin might result in an unacceptable degree of mechanical breakdown. The resin is insoluble in acids, alkalies, and all common solvents.

In general it may be said that where any weak-acid resin in the sodium or ammonium form is subsequently to be acid-stripped before regeneration to its salt form, the use of a macroporous resin is indicated. Typical examples of this are given under the heading Applications, such as in the sugar industry, in the treatment of fermentation broths by the pharmaceutical industry, and in the selective removal of metals. In addition, the macroporous structure of **PuroLite C-106** makes it particularly suitable for use at relatively high temperatures, e.g. in sugar treatment, or the treatment of ammoniacal condensates.

### Typical Chemical and Physical Characteristics

Polymer Structure .....	Macroporous acrylic crosslinked with divinylbenzene
Appearance .....	Spherical beads
Functional Group .....	Carboxylic acid - R-COOH
Ionic Form - as shipped .....	Hydrogen - H <sup>+</sup>
Total Capacity (H <sup>+</sup> Form) .....	2.7 ea/l min
Moisture Retention (H <sup>+</sup> Form) .....	52-58%
Bead Size Range (microns) .....	+1200 <5 % -300 <1%
Screen Size Range (U.S. Standard Screen) .....	16-50 mesh, wet
Reversible Swelling (H <sup>+</sup> @ Na <sup>+</sup> ) .....	60%
(H <sup>+</sup> @ Ca <sup>++</sup> ) .....	15%
Specific Gravity (H <sup>+</sup> Form) .....	1.14
Shipping Weight .....	720-750 kg/m <sup>3</sup> (45-47 lb/ft <sup>3</sup> )
Temperature Limit (H <sup>+</sup> Form) .....	120°C (248°F)
pH Limits (Stability) H <sup>+</sup> @ Na <sup>+</sup> Form .....	0-14
(Operating) .....	5-14

