

Macroporous Weak Acid Cation Exchange Resin

Purolite C106 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, alkalis, 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 C106 makes it particularly suitable for use at relatively high temperatures, e.g. in sugar treatment, or the treatment of ammoniacal condensates.

Basic Features:

Application	Special Applications / Treatment of Aqueous Organic Solutions / Metal Fixation
Polymer Structure	Macroporous polymethacrylic crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Carboxylic Acid
Ionic form as shipped	H ⁺

Typical Physical and Chemical Characteristics:

Total Capacity (min.)	H ⁺	2.70 eq/l
Total Capacity (min.)	H ⁺	58.95 kGr/ft ³
Moisture Retention	H ⁺	54-64 %
Mean Size Typical		0.60-0.85 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	H ⁺ → Na ⁺	50 %
Reversible Swelling (max.)	H ⁺ → Ca ₂ ⁺	15 %
Specific Gravity		1.15 g/ml
Shipping Weight (approx.)		705-740 g/l
Shipping Weight (approx.)		44-47 lbs/ft ³
Temp Limit	H ⁺	120 °C
Temp Limit	H ⁺	250 °F
pH Limits		0-14

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pH Limits	H ⁺	5-14 (Operating)
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