



C-150

Macroporous Strong Acid Cation-Exchange Resin
(FOR THE TREATMENT OF WATER)

Technical Data

PRODUCT DESCRIPTION

Purolite C-150 is a macroporous poly(styrene sulphonate) cation-exchange resin with excellent resistance to both osmotic and thermal shock. Its special sponge-like structure permits higher rates of diffusion of most cations including those of heavy metals and amines and also positively charged organics of higher molecular weight, and facilitates their removal on regeneration. These properties of physical robustness, good regenerability, and fast kinetics of exchange make it ideal for a range of applications. In such cases, it is the general rule that a specially graded particle size is required. Please refer to the **Purolite Summary Brochure** for further details of various grades available.

Purolite C-150 of specially tailored particle sizes find applications in mixed beds, for make-up and condensate polishing, for hydrometallurgy, for sugar treatment, and demineralisation of numerous organic solutions to name but a few. With the macroporous **Purolite C-150**, continuous softening of sugar solutions by the Asahi process is feasible. Here, no gel resin is normally recommended because of the extra osmotic and mechanical stresses imposed by the external regeneration of the resin and its subsequent return to service.

CHEMICAL STABILITY

Purolite C-150 is insoluble in acids, alkalis, and all common solvents. However, exposure to significant amounts of free chlorine or other strong oxidising agents over long periods of time will eventually break down the crosslinking. This will tend to increase the moisture content of the resin, decreasing its mechanical strength, and should be avoided.

Typical Chemical and Physical Characteristics

Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Sulphonic acid
Ionic Form - as shipped	Sodium - Na ⁺
Total Capacity (Na ⁺ Form) min	1.8 eq/l min
Moisture Retention (Na ⁺ Form)	48-53%
Bead Size Range (microns)	+1200 <5 %, -300 <1%
Screen Size Range (U.S. Standard Screen)	16-50 mesh
Reversible Swelling (Na ⁺ @ H ⁺)	5%
Specific Gravity (Na ⁺ Form)	1.25
Shipping Weight	785-825 kg/m ³ (49-51.5 lb/ft ³)
Temperature Limit (H ⁺ Form)	120°C (250°F)
(Na ⁺ Form)	140°C (285°F)
pH Limits	None