

Product Data Sheet

PUROLITE® C160S

Strong Acid Cation Macroporous

Macroporous Strong Acid Cation Exchange Resin - High Capacity

Purolite C160S is a macroporous poly(styrene sulphonate) cation-exchanger designed to withstand strenuous mechanical, osmotic, and thermal conditions such as those found, for example, in the Quentin process in which sugar solutions of around 70° Brix are used at correspondingly high temperatures. Its sponge-like structure permits higher rates of diffusion of the often complex nitrogenous materials taken up by strong-acid resins during demineralization, and facilitates their removal on regeneration.

Purolite C160S can be used in the ammonium form for partial demineralization of concentrate syrups, and also in the Gryllus process, both of which require a resin of superior resistance to thermal and osmotic shock.

Basic Features:

Application Sugar Solutions

Polymer Structure Macroporous polystyrene crosslinked with divinylbenzene

Appearance Spherical beads

Functional Group Sulphonic acid

Ionic form as shipped Na⁺

Typical Physical and Chemical Characteristics:

| Total Capacity (min.) | Na ⁺ | 2.30 eq/l |
|-------------------------------|------------------------|-------------------------------|
| Total Capacity (min.) | Na ⁺ | 50.22 kGr/ft ³ |
| Moisture Retention | Na ⁺ | 35-40 % |
| Mean Size Typical | | 0.65-0.90 mm |
| Uniformity Coefficient (max.) | | 1.70 |
| Reversible Swelling (max.) | $Na^+ \rightarrow H^+$ | 4 % |
| Specific Gravity | | 1.30 g/ml |
| Shipping Weight (approx.) | | 820-860 g/l |
| Shipping Weight (approx.) | | 51.3-53.8 lbs/ft ³ |
| Temp Limit | H ⁺ | 120 °C |
| Temp Limit | H ⁺ | 250 °F |
| Temp Limit | Na ⁺ | 140 °C |
| Temp Limit | Na ⁺ | 285 °F |
| pH Limits | | 0-14 |
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Telephone: (1) 610-668-9090

Fax: (1) 610-668-8139

Email: info@puroliteusa.com

Europe

Telephone: +44 1443 229334

Fax: +44 1443 227073

Email: sales@purolite.com

Asia Pacific

Telephone: +86 571 876 31385 Fax: +86 571 876 31385

Email: pultalan@purolitechina.com