

Shallow Shell Technology Strong Acid Cation

The Purolite SST family of high efficiency softening resins is based on shallow shell technology. Simply stated, the shorter the diffusion path, the more rapid the softening exchange occurs. This is particularly important during regeneration. Reducing the depth of penetration required to cleanse the resin allows for a more complete regeneration and provides a higher, more efficient utilization of the regenerant. The result is a group of resins with unsurpassed salt efficiency, lower leakage, and reduced rinse water requirements. When compared to conventional softening resins, regenerant reductions of 2 to 4 lbs. per cubic foot of resin per regeneration is possible without sacrificing capacity or increasing leakages. This translates to a salt savings of 700 to 1,400 lbs. per cubic foot per year based on daily regenerations.

Basic Features:

Application	Shallow Shell Technology Resin for Regenerant Savings
Polymer Structure	Gel 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 ⁺	3.60 kGr/ft ³
Moisture Retention	Na ⁺	38 - 46 %
Mean Size Typical		0.60-0.85 mm
Uniformity Coefficient (max.)		1.70
Reversible Swelling (max.)	Na ⁺ → H ⁺	8 %
Specific Gravity		1.20 g/ml
Shipping Weight (approx.)		775 - 825 g/l
Shipping Weight (approx.)		48.4 - 51.6 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