

Gel Type Strong Acid Cation Exchange Resin

Purofine PFC100x10H is a gel strong acid cation exchange resin which because of its Special Narrow Size Distribution has higher operating capacity and produces treated water with lower sodium leakage. These advantages are more apparent at lower regeneration levels, where the effect of Superior Regeneration Efficiency is more marked. It is also relatively less susceptible to fouling by heavy metals such as iron. These factors combine to produce better quality of treated water generally, while offering special advantages when operating at higher flow rates. Operation at higher flow rates results in the possibility to use a smaller plant with consequent savings in both resin and regenerant costs. Longer runs and higher throughputs can also be realized where small or shallow resin beds are required. These advantages arise from improved rates of ion exchange both in loading and regeneration. Thus useful economies can be made both in operating and capital costs, and at the same time there are possibilities to produce treated water to higher quality specifications.

**Basic Features:**

Application	Demineralization - Fast Regeneration / Condensate Polishing
Polymer Structure	Gel polystyrene crosslinked with divinylbenzene
Appearance	Spherical beads
Functional Group	Sulphonic acid
Ionic form as shipped	H <sup>+</sup>

**Typical Physical and Chemical Characteristics:**

Total Capacity (min.)	Na <sup>+</sup>	2.20 eq/l
Total Capacity (min.)	Na <sup>+</sup>	48.03 kGr/ft <sup>3</sup>
Moisture Retention	H <sup>+</sup>	47-50 %
Mean Size Typical		0.52-0.62 mm
Uniformity Coefficient (max.)		1.20
Reversible Swelling (max.)	Na <sup>+</sup> → H <sup>+</sup>	6 %
Specific Gravity		1.22 g/ml
Shipping Weight (approx.)		755-780 g/l
Shipping Weight (approx.)		47.2-48.8 lbs/ft <sup>3</sup>
Temp Limit	H <sup>+</sup>	120 °C
Temp Limit	H <sup>+</sup>	250 °F
Temp Limit	Na <sup>+</sup>	140 °C
Temp Limit	Na <sup>+</sup>	285 °F
pH Limits		0-14

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