



Purofine PFC-100

Strong Acid Cation Exchange Resin

Uniformly Sized for fast regeneration-efficient demineralisation

Technical Data Product Description

Purofine PFC-100 is a gel type I strong acid cation exchange resin which because of its **Special Narrow Size Distribution** has **High 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 realised 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.

Typical Physical, Chemical & Operating Characteristics

Polymer Matrix Structure	Cross-linked Gel Polystyrene
Appearance	Dark amber spherical beads
Whole Beads	95% min.
Functional Groups:	R-SO ₃ ⁻
Ionic Form (as shipped).....	Na ⁺
Shipping Weight, Na ⁺ Form.....	785 g/l (49 lb/ft ³)
Screen Size Distribution:	
Median Volume Diameter:	560 +/- 40 µm
Distribution:	90% within +/- 100 µm
Uniformity Coefficient	≤ 1.2
Screen Size: (British Standard Screen)	22-36 mesh wet
(U.S. Standard Screen)	25-40 mesh wet
Particle Size Range	+0.710mm<1%: - 0.425mm<1% (25 U.S. mesh) (40 U.S. mesh)
Moisture Retention: Na ⁺ Form	44-48%
Maximum Swelling, Na ⁺ → H ⁺	5% max
Specific Gravity, Moist. Na ⁺ Form	1.28
Total Exchange Capacity, Na ⁺ Form, wet volumetric	2.0 eq/l min
Dry weight	4.5 eq/kg min
Operating Temperature Na ⁺ Form, max	150°C, 302°F
H ⁺ Form, max	120°C, 248°F
pH range	no limitations