

PRODUCT DATA SHEET

AMBERLITE™ FPC22 Na

Food Grade Strong Acid Cation Exchanger

For use in Decalcifying Beet Sugar Juices

FOOD PROCESSING

AMBERLITE FPC22 Na has been optimised for the treatment of high brix (percent solids) solutions with a low fines content, allowing it to be used for the without severe pressure drop. AMBERLITE FPC22 Na is suited for use in a variety of demanding applications such as the decalcification of sugar juices using the Quentin or NRS process.

AMBERLITE FPC22 Na has a moderate degree of crosslinking resulting in good regeneration efficiency especially when operated in the sodium (Na) form as with decalcification processes. This more open macroporus matrix also prevents calcium build up and precipitation in the resin pores. It is very resistant to osmotic shock and to mechanical attrition resulting in a use over multiple campaigns.

AMBERLITE FPC22 Na is recommended as a general purpose resin for demineralisation application across the Nutrition market.

PROPERTIES

Matrix _____	Macroreticular crosslinked polystyrene
Functional groups _____	Sulfonic acid
Physical form _____	Light grey beads
Ionic form as shipped _____	Na ⁺
Total exchange capacity ^[1] _____	≥ 1.8 eq/L resin (Na ⁺ form)
Moisture holding capacity ^[1] _____	47 - 54 % (Na ⁺ form)
Shipping weight _____	810 g/L resin
Harmonic mean size _____	0.590 - 0.840 mm
Fine contents ^[1] _____	< 0.300 mm : 1.0 % max
Coarse Beads _____	> 1.180 mm :5.0% max

^[1] Contractual value

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature _____	135 °C
Minimum bed depth _____	700 mm
Service flow rate _____	5 to 40 BV*/h
Regenerant _____	NaCl HCl H ₂ SO ₄
Regenerant Flow rate (BV/h) _____	2 to 8 4 to 6 4 to 12
Regenerant Concentration (%) _____	10 4 to 10 1 to 5
Regenerant Level (g/L _R) _____	80 to 400 45 to 150 50 to 200
Minimum contact time _____	30 minutes
Slow rinse _____	2 BV at regeneration flow rate
Fast rinse _____	2 to 4 BV at service flow rate

* 1 BV (Bed Volume) = 1 m³ solution per m³ resin

FOOD PROCESSING

As governmental regulations vary by country, it is recommended that potential users seek advice from their Amberlite representative in order to determine the best resin choice, optimum operating and regeneration conditions.

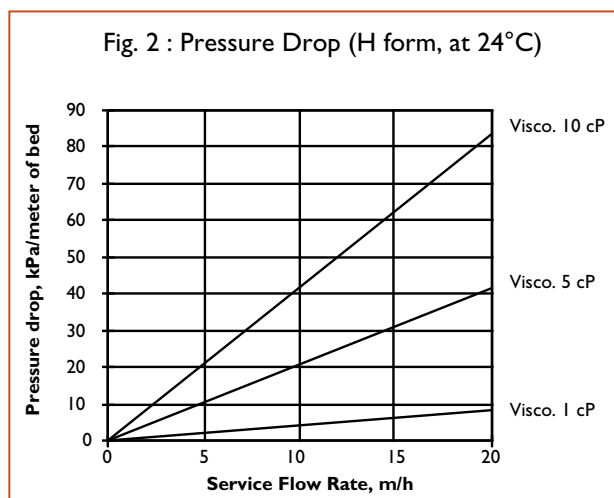
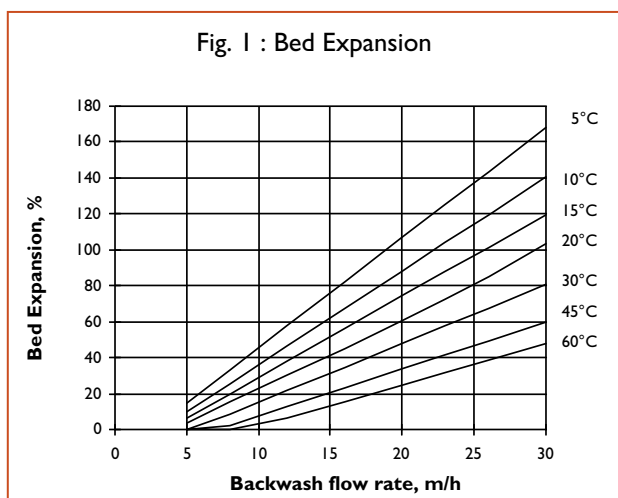
HYDRAULIC CHARACTERISTICS

Figure 1 shows the bed expansion of AMBERLITE FPC22 Na, as a function of backwash flow rate and water temperature.

Figure 2 shows the pressure drop data for AMBERLITE FPC22 Na, as a function of service flow rate and the temperature of the solution to be treated.

Conversion Factors:

- 1 kPa/m equals 0.0442 psi/ft
- 1 m/h equals 0.41 USgpm/ft²



All our products are produced in ISO 9001 certified manufacturing facilities.

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