

PRODUCT DATA SHEET

AMBERLITE™ FPC14 Na

Food Grade Strong Acid Cation Exchanger

For the Decalcification of Thin Sugar Juices

FOOD PROCESSING

AMBERLITE FPC14 Na has been specially developed for pharmaceutical and food applications (i.e. decalcification of saccharose thin juice) following a special manufacturing process which solvent free.

AMBERLITE FPC14 Na can also be used in the recovery of amino acids and is ideal as a general purpose gel type strong acid cation where a high capacity is required such as in amino acid recovery.

AMBERLITE FPC14 Na is a gel type, strong acid, cation exchange resin of the sulphonated polystyrene type. Its principal characteristics are excellent physical, chemical and thermal stability, good ion exchange kinetics and high exchange capacity.

PROPERTIES

Matrix _____	Crosslinked polystyrene
Functional groups _____	Sulfonates
Physical form _____	Amber beads
Ionic form as shipped _____	Na ⁺
Total exchange capacity ^[1] _____	≥ 2.05 eq/L (Na ⁺ form)
Moisture holding capacity ^[2] _____	41 to 49 % (Na ⁺ form)
Shipping weight _____	808 g/L
Harmonic mean size _____	0.600 - 0.800 mm
Fines content ^[2] _____	< 0.300 mm : 2.0 % max

^[1] Average value calculated from statistical quality control

^[2] Contractual value

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature _____	120 °C
Service Flow rate _____	5 to 20 BV*/h
Regenerants _____	NaCl
Regenerant Level _____	60 to 250 g/L _R
Regenerant Concentration _____	10 %
Regenerant Flow rate _____	1 to 3 BV/h
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.

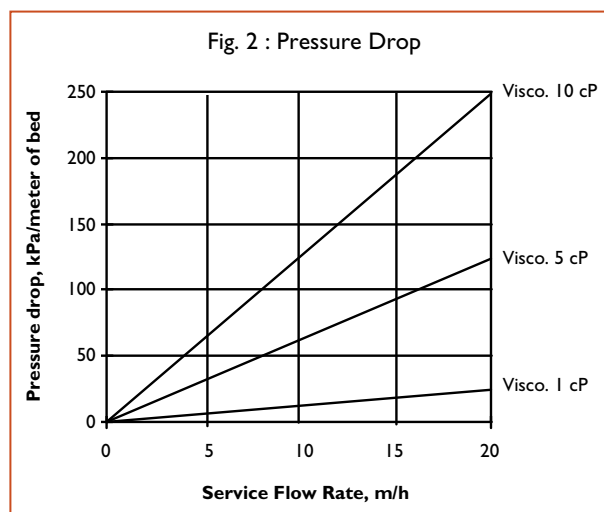
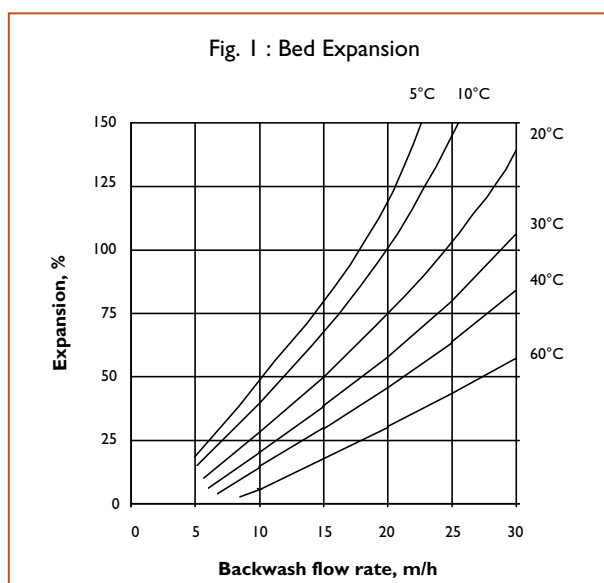
HYDRAULIC CHARACTERISTICS

Figure 1 shows the bed expansion of AMBERLITE FPC14 Na, as a function of backwash flow rate and water temperature.

Figure 2 shows the pressure drop data for AMBERLITE FPC14 Na, as a function of service flow rate and viscosity 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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Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with Ion Exchange resins. Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these materials.

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