

PRODUCT DATA SHEET

AMBERLITE™ FPC22 H

Food Grade Strong Acid Cation Exchanger

For Sweetener Deashing Applications and Biopharmaceutical Applications

FOOD PROCESSING

AMBERLITE FPC22 H has been specially designed for the deashing of liquid sweeteners streams. It has been designed with an optimized crosslinking content to offer superior balance of stability, operating capacity and protein removal. AMBERLITE FPC22 H has been used successfully worldwide for the deashing of sweeteners from a variety of starch sources including corn and wheat starches. AMBERLITE FPC22 H has been sized such that it can be fixed in both fixed beds, moving bed and mixed bed equipment. When used in combination with AMBERLITE FP weakly basic anionic exchange resins, it yields a superior quality sweetener in both ash content and color. AMBERLITE FPC22 H is also recommended for use with AMBERLITE FPA91 Cl in polishing mixed bed applications to removes trace contaminants that can cause odors, off-flavors and color stability problems with stored syrups. These include weak organic acids, nitrogen containing compounds and the removal of HMF.

BIOPHARMACEUTICAL PROCESSING

AMBERLITE FPC22 H is a macroreticular, strong acid, cation exchange resin well adapted to the capture of semi synthetic peptides.

AMBERLITE FPC22 H has been designed with an optimized crosslinking content to offer superior balance of stability, operating capacity, and protein removal.

Its high degree of porosity allows proteinaceous material to be both effectively removed from biostreams and regenerated from the resin.

PROPERTIES AND SUGGESTED OPERATING CONDITIONS

AMBERLITE FPC22 H is a premium grade, macroreticular, strong acid, cation exchange resin composed of sulfonic acid exchange sites on a crosslinked polystyrene

matrix. Its optimum degree of crosslinking imparts superior stability to the macroreticular structure of the resin giving it excellent resistance to chemical oxidation and to breakdown from mechanical, thermal or osmotic shock.

PROPERTIES

Matrix _____	Crosslinked polystyrene
Functional groups _____	Sulfonic acid
Physical form _____	Light grey beads
Ionic form as shipped _____	H ⁺
Total exchange capacity ^[1] _____	≥ 1.7 eq/L (H ⁺ form)
Moisture holding capacity ^[1] _____	52 to 58 % (H ⁺ form)
Shipping weight _____	780 g/L
Harmonic mean size _____	0.600 - 0.800 mm
Fines content ^[1] _____	< 0.300 mm : 1.0 % max
Maximum reversible swelling	Na ⁺ → H ⁺ : 10 %

^[1] Contractual value

Test methods available upon request

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature _____	135 °C
Minimum bed depth _____	700 mm
Service flow rate _____	5 to 20 BV*/h
Regenerants _____	HCl H ₂ SO ₄
Regenerant Flow rate (BV/h) _____	2 to 4 4 to 12
Regenerant Concentration (%) _____	4 to 10 1 to 5
Regenerant Level (g/L _R) _____	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 from country to country, it is recommended that potential users seek advice from their Rohm and Haas 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 H as a function of backwash flow rate and water temperature.

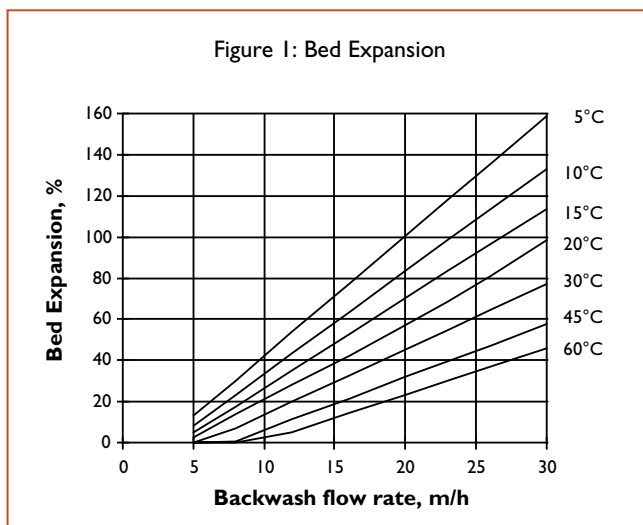
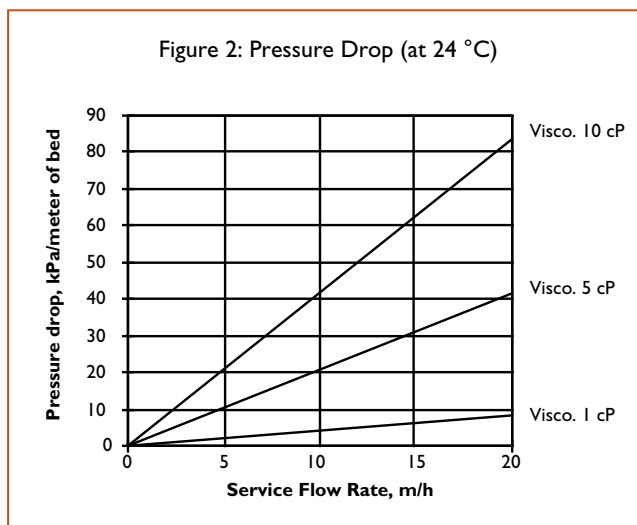


Figure 2 shows the pressure drop data for AMBERLITE FPC22 H as a function of service flow rate and viscosity of the solution to be treated.

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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