



## AMBERLITE™ FPC14 Na

Food Grade Strong Acid Cation Exchanger

### Introduction

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 solventfree.

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 <sup>+</sup>
Total exchange capacity	≥ 2.05 eq/L (Na <sup>+</sup> form)
Moisture holding capacity	41 to 49 % (Na <sup>+</sup> form)
Shipping weight	808 g/L
Harmonic mean size	0.600 - 0.800 mm
Fine content	< 0.300 mm : 2.0 % max

### 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 <sub>R</sub>
Regenerant Concentration	10 %
Regenerant Flow rate	1 to 3 BV/h
Minimum contact time	30 minutes
Slow rinse	2 BV at regeneration flow rate
Fastrinse	2 to 4 BV at service flow rate

### 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/ft<sup>2</sup>

Fig. 1 : Bed Expansion

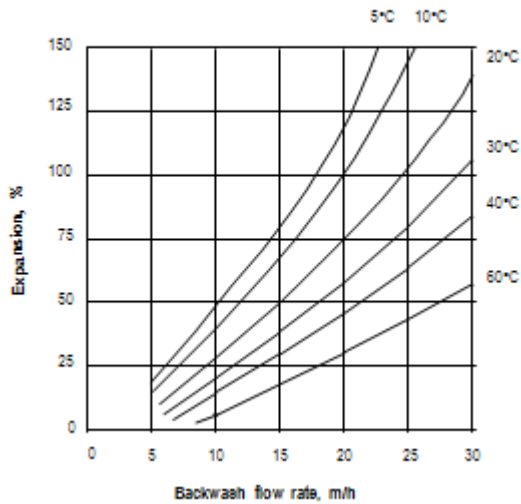
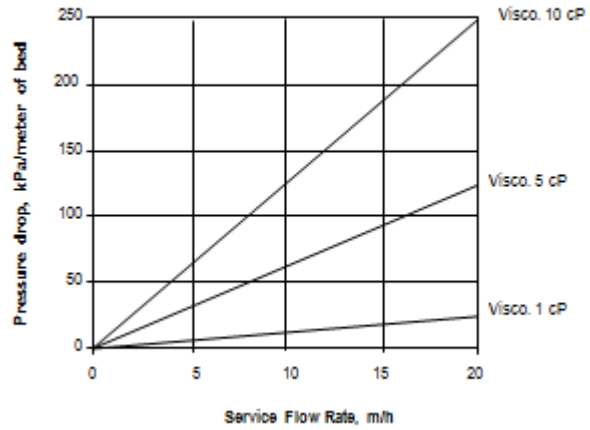


Fig. 2 : Pressure Drop



**For more information about DOW™ resins, call the Dow Water & Process Solutions business:**

North America: 1-800-447-4369  
 Latin America: (+55) 11-5188-9222  
 Europe: +800-3-694-6367  
 Italy: +800-783-825  
 South Africa: +0800 99 5078  
 Pacific: +8007776 7776  
 China: +400 889-0789

<http://www.dowwaterandprocess.com>

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