



AMBERLITE™ FPA42 C1

Food Grade Strong Base Anion Exchanger

Introduction

AMBERLITE FPA42 Cl is intended for those applications where a high volume capacity strong base resin can be used for general demineralisation and deashing where the risk of fouling from coloured bodies and organics is relatively low. AMBERLITE FPA42 Cl is a uniform particle size, high quality, strong base type 1 anion exchanger.

The uniformity and mean particle size of AMBERLITE FPA42 Cl have been optimised for use in equipment including mixed beds.

AMBERLITE FPA42 Cl can be directly substituted for conventional gel anion exchange resin in new equipment and in rebeds of existing demineralisers.

Properties

Matrix	Styrene divinylbenzene copolymer
Functional groups	-N ⁺ (CH ₃) ₃
Physical form	Insoluble, yellow transparent beads
Ionic form as shipped	Cl ⁻
Total exchange capacity ^[1]	≥ 1.30 eq/L (Cl ⁻ form)
Moisture holding capacity ^[1]	49 to 55 % (Cl ⁻ form)
Specific gravity	1.06 to 1.08 (Cl ⁻ form)
Shipping weight	670 g/L
Particle size	
Uniformity coefficient ^[1]	≤ 1.25
Harmonic mean size	600 to 800 μm
Fine contents ^[1]	< 0.425 mm : 0.5 % max
Coarse beads	> 0.850 mm : 5.0 % max
Maximum reversible swelling	Cl ⁻ → OH ⁻ : about 30 %

^[1] Contractual value

Test methods are available on request.

Suggested Operating Conditions

Minimum bed depth	800 mm
Service flow rate	5 to 50 BV/h
Maximum linear velocity	60 m/h
Regenerant	NaOH
Level	40 to 100 g/L
Concentration	2 to 5 %
Flow rate	2 to 8 BV*/h
Minimum contact time	20 minutes
Slow rinse	2 BV at regeneration flow rate
Fast rinse	3 to 6 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 FPA42 CI as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERLITE FPA42 CI, as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with a clear water and a correctly classified bed.

Fig. 1: Bed Expansion

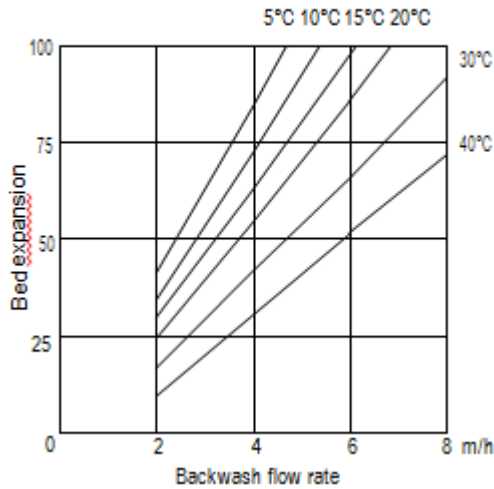
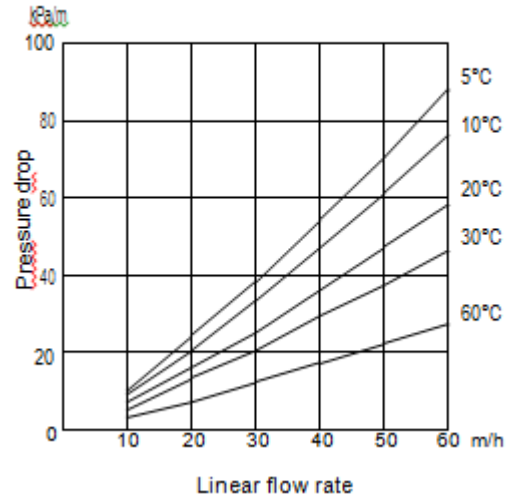


Fig. 2: Pressure Drop (in water)



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

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