



AMBERLITE™ IR120 H

Industrial Grade Strong Acid Cation Exchanger

Introduction

AMBERLITE IR120 H resin is a gel type strongly acidic cation exchange resin of the sulfonated polystyrene type. It is used for water demineralisation (in H⁺ form) in co-flow regenerated units.

AMBERLITE IR120 H resin is an excellent general purpose cation exchange resin that can be used for a wide variety of water demineralisation applications.

Properties

Physical form	Amber spherical beads
Matrix	Styrene divinylbenzene copolymer
Functional group	Sulfonic acid
Ionic form as shipped	H ⁺
Total exchange capacity	≥ 1.80 eq/L (H ⁺ form)
Moisture holding capacity	53 to 58 % (H ⁺ form)
Shipping weight	800 g/L
Particle size	
Uniformity coefficient	≤ 1.8
Harmonic mean size	0.620 to 0.830 mm < 0.300 mm 2 % max
Maximum reversible swelling	Na ⁺ → H ⁺ ≤ 11 %

Suggested Operating Conditions

Maximum operating temperature	135 °C
Minimum bed depth	700 mm
Service flow rate	5 to 40 BV*/h
Regeneration	
Regenerants	HCl H ₂ SO ₄
Level (g/L)	50 to 150 60 to 240
Concentration (%)	5 to 8 0.7 to 6
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 IR120 H resin as a function of backwash flow rate and water temperature.

Figure 2 shows the pressure drop data for AMBERLITE IR120 H resin, as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with clear water and a correctly classified bed.

Fig. 1: Bed Expansion

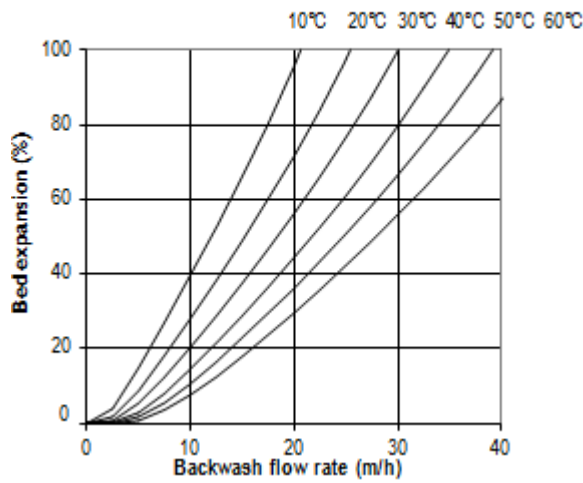
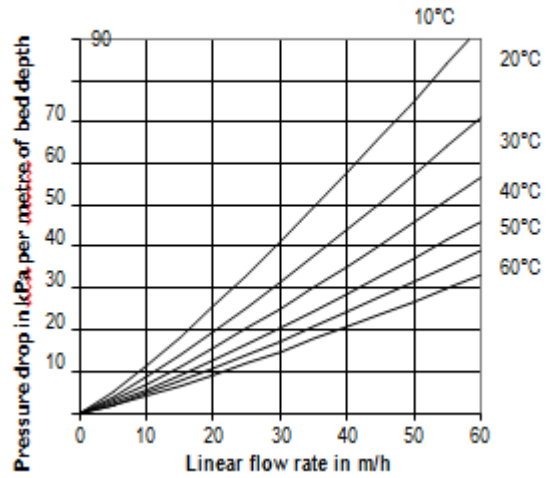


Fig. 2 : Pressure Drop



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