

IONAC® ASB1 P

Advanced Anion Exchange Resin

High Efficiency, Type 1 Strong Base Resin for Water Demineralization Applications

IONAC® ASB1 P Type 1 strong base anion resin has excellent kinetics, very good regeneration efficiency and physical and chemical stability. This porous bead is made by a special process giving enhanced resistance to organics and fast equilibrium rates. Mainly used for demineralization of water, extraction of heavy metals and the recovery of precious metals in the form of complex anions.

Typical Characteristics

Ionic form as delivered	Cl ⁻
Total exchange capacity, min. as CaCO ₃	1.3 eq/l 28 kgr/ft ³
Water content	50-56%
Bead size distribution:	
Normal range	0.3-1.2 mm
>1.2mm	2%
<0.3mm	2%
Total swelling (Cl ⁻ → OH ⁻), approx.	20%
Whole uncracked beads, min.	90%
Particle density, approx.	1.08 g/ml
Shipping weight, approx.	690 g/l 43 lbs/ft ³

Operating Conditions

Maximum operating temperature:	
OH ⁻ form	60°C (140°F)
Cl ⁻ form	100°C (212°F)
pH range	0-14
Bed depth, min.	800 mm (2.6 ft)
Flow rates:	
Service/fast rinse	5-50 m/h (2-20 gpm/ft ²)
Backwash	See Figure 1
Co-current regeneration/displacement rinse	1-10 m/h (0.4-4.0 gpm/ft ²)
Total rinse requirement	3-6 bed volumes
Regenerant (at ambient temp. or up to 50°C for silica removal)	2-5% NaOH
Load of organic matter	3 g KMnO ₄ /l

Type

Type 1
strong base anion

Matrix

Styrene-DVB gel

Functional Group

Quaternary amine

Standard Packaging

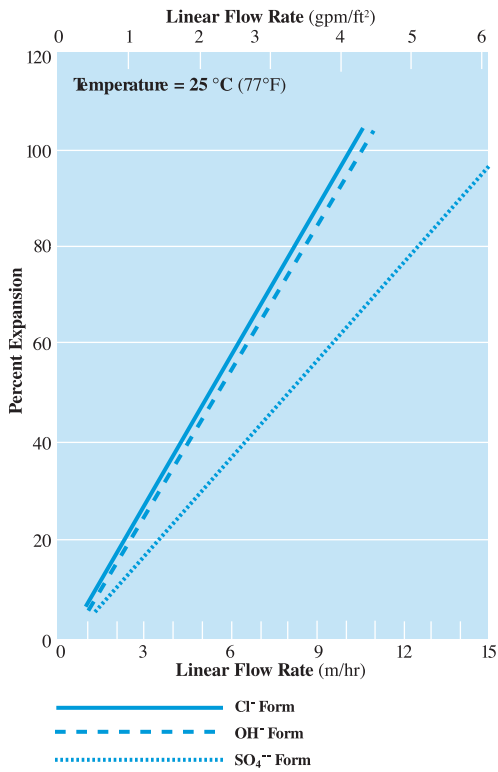
7 cubic feet
fiber drums.

Other packaging
is available.

Technical Data

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Figure 1 Backwash Expansion Data

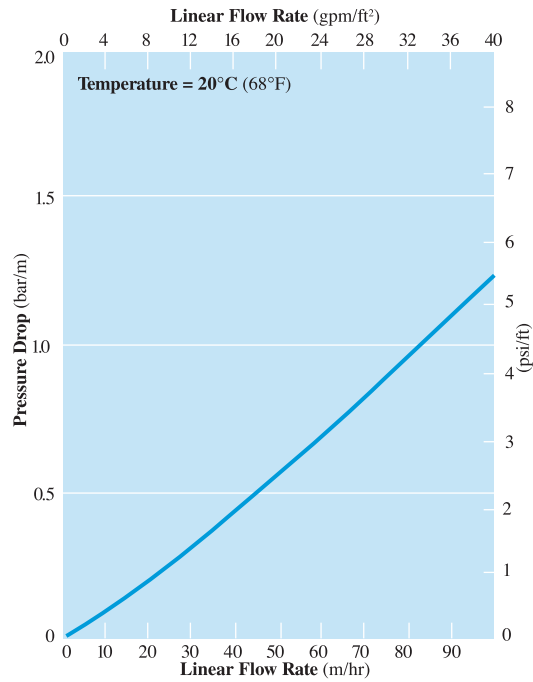


For other temperatures use:

$$F_T = F_{77°F} [1 + 0.008 (T_F - 77)], \text{ where } F \equiv \text{gpm/ft}^2$$

$$F_T = F_{25°C} [1 + 0.008 (1.8T_C - 45)], \text{ where } F \equiv \text{m/h}$$

Figure 2 Pressure Drop Data



For other temperatures use:

$$P_T = P_{20°C} / (0.026 T_C + 0.48), \text{ where } P \equiv \text{bar/m}$$

$$P_T = P_{68°F} / (0.014 T_F + 0.05), \text{ where } P \equiv \text{psi/ft}$$

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