ROHM AND HAAS

AMBERLITE® SR1L Na

Strongly Acidic Cation Exchange Resin

PRODUCT DATA SHEET

AMBERLITE SR1L Na is a gel type strong acid cation exchange resin of the sulphonated polystyrene type, used for water softening. Its principal characteristics are excellent physical, chemical and thermal stability, good ion exchange kinetics and high exchange capacity. AMBERLITE SR1L Na has been specially developed for potable water and food applications (i.e. decalcification of saccharose thin juice) following a special manufacturing process which does not use any solvents. AMBERLITE SR1L Na is produced in a free flowing form which makes the filling of the units and cartridges very easy and rapid.

PROPERTIES

Matrix	Styrene divinylbenzene copolymer
Functional groups	Sulphonates
Physical form	Amber beads
Ionic form as shipped	Na^+
Total exchange capacity [1]	2.05 eq/ L (Na^+ form)
Moisture holding capacity [2]	41 to 49 % (Na^+ form)
Shipping weight	820 g/ L
Harmonic mean size	600 - 800 µm
Uniformity coefficient	≤ 1.8
Fines content [2]	< 0.300 mm : 2.0 % max
Coarse beads	> 1.180 mm : 2.0 % max
Chemical resistance	Insoluble in dilute solutions of acids or bases and common solvents

[1] *Average value calculated from statistical quality control.*

[2] *Contractual value.*

Test methods and SQC charts are available on request.

SUGGESTED OPERATING CONDITIONS (WATER TREATMENT)

Maximum operating temperature	120 °C		
Service Flowrate	5 to 50* BV/ h		
Regenerants	NaCl	HCl	H_2SO_4
Level (g/ L)	60 to 250	50 to 150	50 to 240
Concentration (%)	10	5 to 8	0.7 to 6
Flowrate (BV/ h)	2 to 8	2 to 5	2 to 20
Minimum contact time	30 minutes		
Slow rinse	2 BV at regeneration flowrate		
Fast rinse	2 to 4 BV at service flowrate		

**1 BV (Bed Volume) = 1 m3 solution per m3 resin*

COMPLIANCE

AMBERLITE SR1L Na is approved in France, Austria, Poland, the UK for the treatment of potable water. It complies with the Council of Europe Resolution AP(97)1, and with US FDA 21 CFR 173.25 (a). All ingredients entering in the composition of AMBERLITE SR1L Na are listed in German BgVV XXIV recommendation*, provided it has been pre-treated according to Rohm and Haas recommendations.
AMBERLITE SR1L Na is approved by la Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes in France as sugar industry processing aid.
For further details regarding individual registrations/ compliances, please contact your nearest Rohm and Haas office.

* in Germany complies with DIN 19633 (<10 ppm TOC).

QUALITY CONTROL

AMBERLITE SR1L Na is analysed to ensure its compliance with high purity specification, in particular:

- Physical and chemical properties,
- Individual release of certain substance in the treated water,
- Global release of organic substances expressed in TOC (Total Organic Carbon),
- Total microbial count.

HYDRAULIC CHARACTERISTICS

(Water Treatment)

Figure 1 shows the bed expansion of AMBERLITE SR1L Na, as a function of backwash flow rate and water temperature.
Figure 2 shows the pressure drop data for AMBERLITE SR1L Na, as a function of service flow rate and water temperature.

Fig. 1 : Bed Expansion

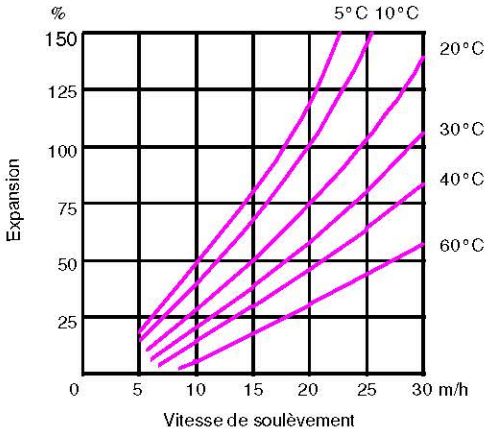
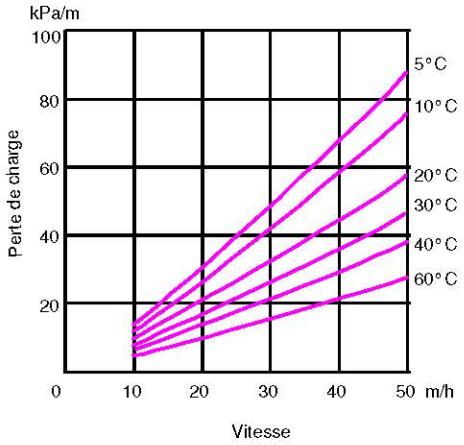


Fig. 2 : Pressure drop



All our products are produced in ISO 9002 certified manufacturing facilities.