



## AMBERLITE™ SR1L Na Resin

For Potable Water

### Introduction

AMBERLITE™ SR1L Na Resin 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 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.

AMBERLITE SR1L Na Resin is analyzed to facilitate 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, and total microbial count.

### Properties

Physical Form	Amber beads
Matrix	Styrene divinylbenzene copolymer
Functional group	Sulphonates
Ionic form as shipped	Na <sup>+</sup>
Total exchange capacity <sup>[1]</sup>	1.90 eq/L min (41.5 kgr/ft <sup>3</sup> as CaCO <sub>3</sub> min)
Moisture holding capacity <sup>[1]</sup>	41 - 49%
Shipping weight	808 g/L (50 lbs/ft <sup>3</sup> )
Harmonic mean Diameter <sup>[1]</sup>	0.600 - 0.800 mm
Fines content <sup>[1]</sup>	< 300 micron : 2.0% max
Coarse beads <sup>[1]</sup>	>1180 micron : 2.0% max
Chemical resistance	Insoluble in dilute solutions of acids or bases and common solvents

<sup>[1]</sup> Contractual value

### Suggested Operating Conditions

Water Treatment			
Maximum operating temperature	120°C/250°F		
Service flow rate	5–50* BV/h (62.2 gpm/ft <sup>3</sup> )		
<b>Regenerants</b>	<b>NaCl</b>	<b>HCl</b>	<b>H<sub>2</sub>SO<sub>4</sub></b>
Level (g/L)	60–250	50–150	50–240
Level (lbs/ft <sup>3</sup> )	3.8–15.6	3–9.4	3–15
Concentration (%)	10	5–8	0.7–6
Flow rate (BV/h)	2–8	2–5	2–20
Flow rate (gpm/ft <sup>3</sup> )	0.25–1.0	0.25–0.63	0.25–2.5
Minimum contact time	30 minutes		
Slow rinse	2 BV at regeneration flow rate		
Fast rinse	2–4 BV at service flow rate		

\*1 BV (Bed Volume) = 1 m<sup>3</sup> solution per m<sup>3</sup> resin and 7.5 gals per ft<sup>3</sup> resin.

### Packaging

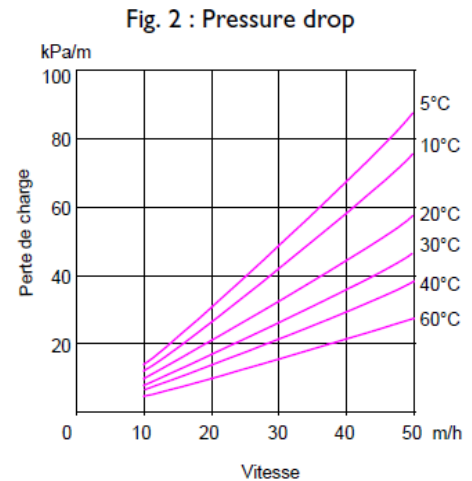
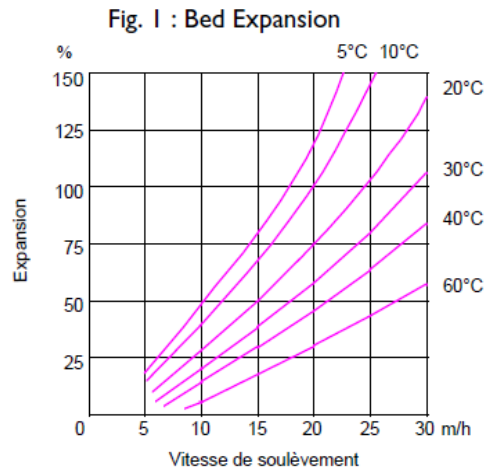
25 liter bags

## Hydraulic Characteristics

### Water Treatment

Figure 1 shows the bed expansion of AMBERLITE™ SR1L Na Resin, as a function of backwash flow rate and water temperature.

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



## Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

Warning: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

## Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

## Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.



## **Product Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## **Customer Notice**

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

These resins may be subject to drinking water application restrictions in some countries. Please check the application status before use and sale.

### **DOWEX™ Ion Exchange Resins**

**For more information about DOWEX™ 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: +800 7776 7776  
China: +400 889-0789

[www.dowwaterandprocess.com](http://www.dowwaterandprocess.com)

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