



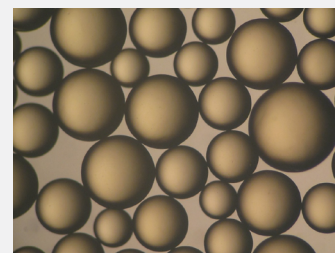
# DuPont™ AmberLite™ IRC120 Na Ion Exchange Resin

Gaussian, Gel, Strong Acid Cation Exchange Resin for Industrial Softening Applications

## Description

DuPont™ AmberLite™ IRC120 Na Ion Exchange Resin is a general-purpose softening resin with a long-established track record of reliable performance in the industry. This durable resin offers a good balance of capacity and strength resulting in long lifetime for co-flow regenerated systems in industrial water treatment.

AmberLite™ IRC120 Na is available for demineralization applications when the sodium-form is preferred by the user.



## Applications

- Industrial softening
- Demineralization (when the sodium-form is preferred by the user).

## System Designs

- Co-current

## Historical Reference

AmberLite™ IRC120 Na Ion Exchange Resin has previously been sold as AmberLite™ IR120 Na Ion Exchange Resin.

## Typical Properties

### Physical Properties

Copolymer	Styrene-divinylbenzene
Matrix	Gel
Type	Strong acid cation
Functional Group	Sulfonic acid
Physical Form	Amber, translucent, spherical beads

### Chemical Properties

Ionic Form as Shipped	Na <sup>+</sup>
Total Exchange Capacity	≥ 2.0 eq/L (Na <sup>+</sup> form)
Water Retention Capacity	40.0 – 50.0% (Na <sup>+</sup> form)

### Particle Size <sup>§</sup>

< 300 µm	≤ 2.0%
> 1180 µm	≤ 4.0%

<sup>§</sup> For additional particle size information, please refer to the [Particle Size Distribution](#) Cross Reference Chart (Form No. 45-D00954-en).

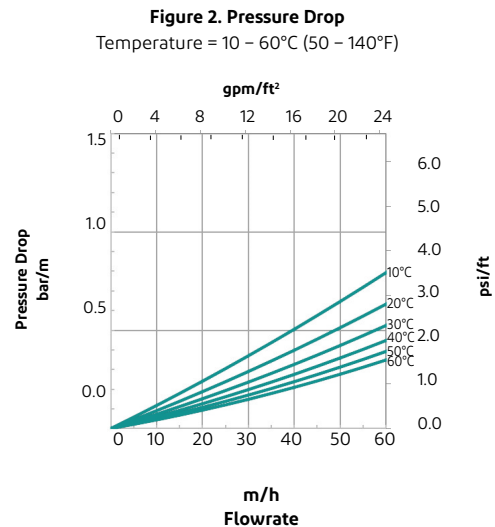
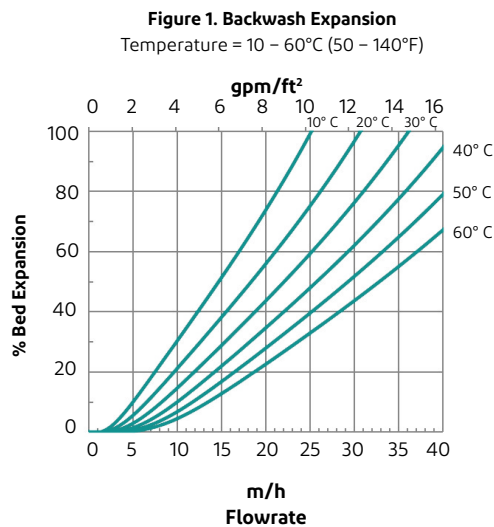
Stability	
Swelling	$\text{Na}^+ \rightarrow \text{H}^+ \leq 11\%$
Density	
Particle Density	1.27 g/mL
Shipping Weight	817-840 g/L
Suggested Operating Conditions	
Temperature Range (Na <sup>+</sup> form)	5 – 150°C (41 – 302°F)
pH Range	
Service Cycle	1 – 14
Stable	0 – 14

For additional information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for [separate beds](#) (Form No. 45-D01131-en) in water treatment, please refer to our Tech Fact.

### Hydraulic Characteristics

Estimated bed expansion of DuPont™ AmberLite™ IRC120 Na Ion Exchange Resin as a function of backwash flowrate and temperature is shown in Figure 1.

Estimated pressure drop for AmberLite™ IRC120 Na as a function of service flowrate and temperature is shown in Figure 2. These pressure drop expectations are valid at the start of the service run with clean water and a well-classified bed.



## Product Stewardship

DuPont 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 DuPont products—from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

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### Please be aware of the following:

**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.



Have a question? Contact us at:  
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