



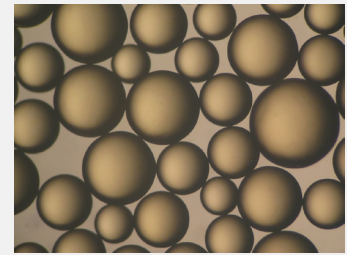
DuPont™ AmberLite™ IRC120 Na Ion Exchange Resin

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Historical Reference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 ⁺ |
| Total Exchange Capacity | ≥ 2.0 eq/L (Na ⁺ form) |
| Water Retention Capacity | 40.0 – 50.0% (Na ⁺ form) |

Particle Size ⁵

| | |
|-----------|--------|
| < 300 μm | ≤ 2.0% |
| > 1180 μm | ≤ 4.0% |

⁵ For additional particle size information, please refer to the [Particle Size Distribution](#) Cross Reference Chart (Form No. 45-D00954-en).

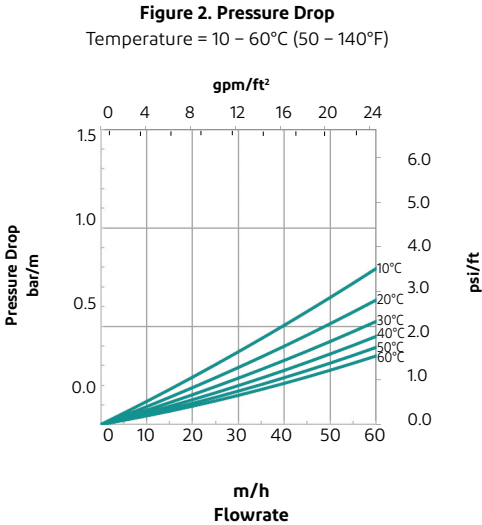
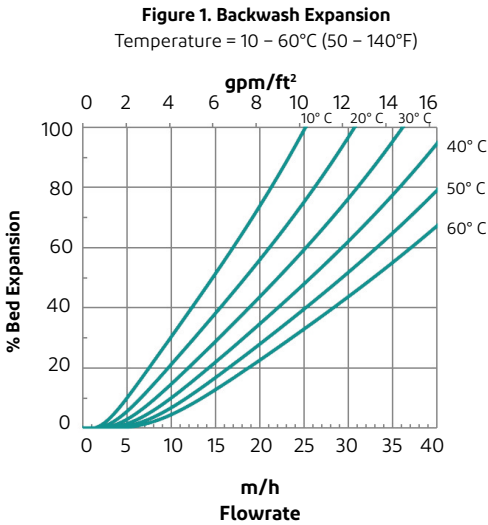
| Stability | |
|--|--|
| Swelling | $\text{Na}^+ \rightarrow \text{H}^+ \leq 11\%$ |
| Density | |
| Particle Density | 1.27 g/mL |
| Shipping Weight | 817-840 g/L |
| Suggested Operating Conditions | |
| Temperature Range (Na ⁺ form) | 5 – 150°C (41 – 302°F) |
| pH Range | |
| Service Cycle | 1 – 14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



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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:
[dupont.com/water/contact-us](https://www.dupont.com/water/contact-us)

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