

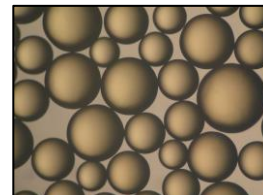


AMBERLITE™ IRC120 Na Ion Exchange Resin

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

Description

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Historical Reference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 Physical and Chemical 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 | 42.0 – 49.0% (Na ⁺ form) |
| Particle Size | |
| < 300 μm | ≤ 2.0% |
| > 1180 μm | ≤ 4.0% |
| Stability | |
| Swelling | Na ⁺ → H ⁺ ≤ 11% |
| Density | |
| Particle Density | 1.27 g/mL |
| Shipping Weight | 820 g/L |

§ For additional particle size information, please refer to the [Particle Size Distribution Cross Reference Chart](#) (Form No. 177-01775).

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. 177-03729) in water treatment, please refer to our Tech Fact.

Hydraulic Characteristics

Estimated bed expansion of 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.

Figure 1: Backwash Expansion

Temperature = 10 – 60°C (50 – 140°F)

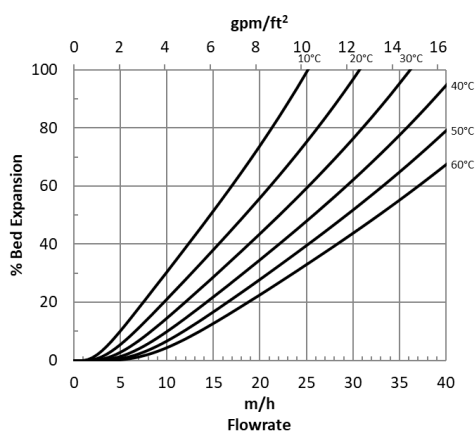
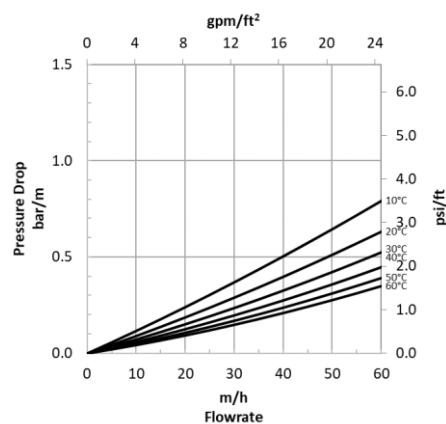


Figure 2: Pressure Drop

Temperature = 10 – 60°C (50 – 140°F)



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For more information, contact our Customer Information Group:

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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.

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