Product Data Sheet

DuPont™ AmberLite™ CR5550 Chromatographic Separation Resin

Food-grade, Gel, Weak Base Anion Resin

Description

DuPont™ AmberLite™ CR5550 Chromatographic Separation Resin has been specially designed for use in the purification of organic acids and for improved separations where other acrylic weak base resin are currently used.

The extremely flexible acrylic polymer matrix provides outstanding physical stability and greater resistance to organic fouling than conventional polystyrene-based resins, leading to longer life in the application.

AmberLite™ CR5550 has higher basicity than other weakly basic ion exchange resins, making it an excellent choice for the removal of weak organic acids. In addition, this resin contains no strongly basic functional sites.

Applications

- Organic acid purification

Typical Properties

Physical Properties	
Copolymer	Crosslinked acrylic
Matrix	Gel
Type	Weak base anion
Functional Group	Tertiary amine
Physical Form	White, translucent, spherical beads
Chemical Properties	
Ionic Form as Shipped	Free base (FB)
Total Exchange Capacity	≥ 1.6 eq/L
Water Retention Capacity	56.0 – 64.0%
Particle Size [§]	
Particle Diameter	400 –500 µm
Uniformity Coefficient	≤ 1.3
Stability	
Swelling	FB → HCL:30%
Density	
Shipping Weight	665 g/L

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

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Hydraulic Characteristics

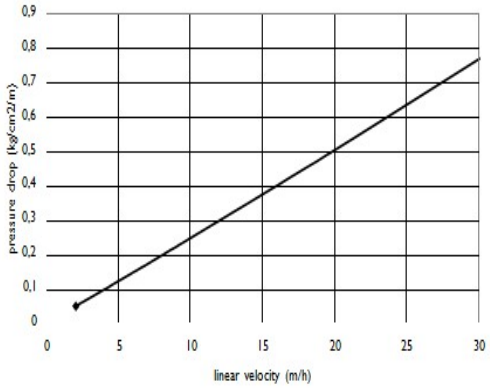
Estimated bed expansion of DuPont™ AmberLite™ CR5550 Chromatographic Separation Resin as a function of backwash flowrate and temperature is shown in Figure 1.

Estimated pressure drop for AmberLite™ CR5550 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 = 20 – 40°C (68 – 104°F)



Figure 2: Pressure Drop
Temperature = 20°C (68°F)



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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.

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Have a question? Contact us at:

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