

Product Data Sheet

AMBERLITE™ FPA42 CI Ion Exchange Resin

Food-grade, Gel, Strong Base Anion Exchange Resin

Description AMBERLITE[™] FPA42 CI Ion Exchange Resin is a high-capacity, uniform particle size, gel, Type I strong base anion exchanger. It is intended for general demineralization and deashing in which the risk of fouling from colored bodies and organics is relatively low.

The uniformity and mean particle size of AMBERLITE[™] FPA42 CI have been optimized for use in equipment including mixed beds. AMBERLITE[™] FPA42 CI can be directly substituted for conventional gel anion exchange resin in new equipment and in rebeds of existing demineralizers.

Applications

Sweetener deashingDemineralization

Typical Properties

Physical Properties	
Copolymer	Styrene-divinylbenzene
Matrix	Gel
Туре	Strong base anion, Type I
Functional Group	Trimethylammonium
Physical Form	Amber, translucent, spherical beads
Chemical Properties	
Ionic Form as Shipped	CI⁻
Total Exchange Capacity	≥ 1.30 eq/L
Water Retention Capacity	49 – 55%
Particle Size §	
Particle Diameter	600 – 800 μm
Uniformity Coefficient	≤ 1.25
< 425 μm	≤ 0.5%
> 850 µm	≤ 5.0%
Stability	
Swelling	$CI^- \rightarrow OH^-$: 30%
Density	
Particle Density	1.06 – 1.08 g/mL
Shipping Weight	670 g/L

§ For additional particle size information, please refer to the <u>Particle Size Distribution Cross Reference Chart</u> (Form No. 177-01775).

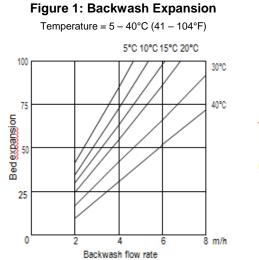
Suggested	Bed Depth, min.	800 mm (2.6 ft)	
Operating	Flowrates		
Conditions	Service	5 – 50 BV*/h	
	Linear Velocity	≤ 60 m/h	
	Backwash	See Figure 1	
	Slow Rinse	Regeneration flowrate for 2 BV	
	Fast Rinse (if applicable)	Service flowrate for 3 – 6 BV	
	Contact Time		
	Regeneration	≥ 20 minutes	
	Regenerant	NaOH	
	Concentration	2 – 5%	
	Level	40 – 100 kg/m ³ (2.5 – 6.3 lb/ft ³)	

* 1 BV (Bed Volume) = 1 m^3 solution per m^3 resin or 7.5 gal per ft³ resin

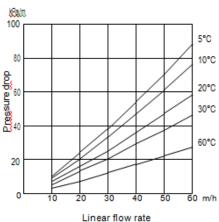
Hydraulic Characteristics

Estimated bed expansion of AMBERLITE™ FPA42 CI Ion Exchange Resin as a function of backwash flowrate and temperature is shown in Figure 1.

Estimated pressure drop (in water) for AMBERLITE™ FPA42 CI 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

consult sources knowledgeable in handling such materials.

Have a question? Contact us at:

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a violent exothermic reaction (explosion). Before using strong oxidizing agents,

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