



Product Data Sheet

DuPont™ AmberLite™ FPA555 Cl Ion Exchange Resin

Strongly Basic Anion Exchange Resin

Description

DuPont™ AmberLite™ FPA555 Cl Ion Exchange Resin is a macroporous strongly basic anion exchange resin containing quaternary ammonium groups. It has been specially developed for selective nitrate removal from potable waters in any types of units, including DuPont™ AmberPack™. Indeed, AmberLite™ FPA555 Cl removes nitrate preferentially to sulfate.

Typical Properties

Physical Properties

Copolymer	Styrene-divinylbenzene
Matrix	Macroporous
Type	Strong base anion
Functional Group	Triethylamine
Physical Form	Cream, opaque, spherical beads

Chemical Properties

Ionic Form as Shipped	Cl ⁻
Total Exchange Capacity	≥ 0.90 eq/L
Water Retention Capacity	52 – 58%

Particle Size §

Particle Diameter	650 – 850 µm
Uniformity Coefficient	≤ 1.5
< 300 µm	≤ 0.3%
> 1180 µm	≤ 5.0%

Stability

Swelling	Cl ⁻ → NO ₃ ⁻ : negligible
----------	---

Density

Particle Density	1.055 – 1.085 g/mL
Shipping Weight	720 g/L

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

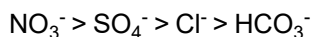
Suggested Operating Conditions

Maximum Operating Temperature	80°C (176°F)
Bed Depth, min.	700 mm (2.3 ft)
Flowrates	
Service	5 – 40 BV*/h (or ≤ 50 m/h)
Regeneration	
NaCl	2 – 8 BV/h
Slow Rinse	2 – 5 BV/h
Fast Rinse	2 – 8 BV/h
Contact Time	
Regeneration	≥ 30 minutes
Regenerant	NaCl
Concentration	5 – 10%
Level, 100% basis	125 – 250 g/L

* 1 BV (Bed Volume) = 1 m³ solution per m³ resin or 7.5 gal solution per ft³ resin

Application Information

The use of DuPont™ AmberLite™ FPA555 Cl Ion Exchange Resin is specially recommended in the case of waters containing more sulphate than nitrate. In such a case, its operating capacity is higher than that of conventional resins. It is due to the relative affinities towards anions which are as follows:



Another consequence is that the nitrate level after breakthrough will never be higher in the effluent than in the influent.

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.

Customer Notice

DuPont strongly encourages its customers to review both their manufacturing processes and their applications of DuPont products from the standpoint of human health and environmental quality to ensure that DuPont products are not used in ways for which they are not intended or tested. DuPont personnel are available to answer your questions and to provide reasonable technical support. DuPont product literature, including safety data sheets, should be consulted prior to use of DuPont products. Current safety data sheets are available from DuPont.

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:

www.dupont.com/water/contact-us

All information set forth herein is for informational purposes only. This information is general information and may differ from that based on actual conditions. Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries. Please note that physical properties may vary depending on certain conditions and while operating conditions stated in this document are intended to lengthen product lifespan and/or improve product performance, it will ultimately depend on actual circumstances and is in no event a guarantee of achieving any specific results. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. No freedom from infringement of any patent or trademark owned by DuPont or others is to be inferred.

© 2023 DuPont. DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours Inc., unless otherwise noted.

