Product Data Sheet

TapTec™ HP333 H Ion Exchange Resin

Drinking Water-grade, Weak Acid Cation Exchange Resin for Hardness Removal

Description

TapTec™ HP333 H Ion Exchange Resin is a weak acid cation exchange resin containing carboxylic groups on an acrylic matrix. It combines a high exchange capacity with a smaller volume variation than conventional carboxylic resins.

TapTec™ HP333 H is designed for cartridge applications where temporary hardness is removed from tap water for use in cooking or making tea and coffee.[1] It also removes heavy metals and is widely used to improve the taste of water.[1]

TapTec™ HP resins are manufactured especially for potable water treatment.

[1] Not performance tested or certified by a third party certifying body

Properties

Physical Properties	
Copolymer	Crosslinked acrylic
Matrix	Macroporous
Type	Weak acid cation
Functional Group	Carboxylic acid
Physical Form	Yellow, opaque, spherical beads
Chemical Properties	
Ionic Form as Shipped	H^+
Total Exchange Capacity	≥ 3.85 eq/L
Particle Size [§]	
Particle Diameter	500 – 700 µm
< 300 µm	≤ 0.5%
< 400 µm	≤ 10.0%
> 1180 µm	≤ 3.0%
Purity	
Color Throw, as packaged	≤ 20 APHA units
Stabliity	
Whole Uncracked Beads	≥ 90%
Swelling	$Ca^{2+} \rightarrow Na^+$: 5%
Density	
Particle Density	1.140 – 1.180 g/mL
Shipping Weight	685 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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Application Information

Performance

TapTec™ HP333 H Ion Exchange Resin will remove temporary hardness (bicarbonate alkalinity) from over 450 bed volumes of tap water having 5 meq/L alkalinity (250 ppm as $CaCO_3$) and from 1100 bed volumes having 2 meq/L alkalinity (100 ppm as $CaCO_3$). These volumes are indicated for an alkalinity leakage end point of 50%.

Conditioning

TapTec™ HP333 H Ion Exchange Resin is ready to use.[2] When using a new cartridge for the first time, TapTec™ HP333 H will comply with regulations after being rinsed with 20 bed volumes of water (i.e., 2 L of water for a cartridge containing 100 mL of resin). No other treatment will be required by the user.

[2] This is valid only if:

- the resin is stored at a temperature of less than 25°C and protected from UV radiation
- the storage time between production date (printed on the bags) and final use does not exceed 6 months

Cartridge Design

Appropriate cartridge design will have to take care of:

- maintaining the resin in a moist state
- keeping contamination under control

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.

Regulatory Note

This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.

Have a question? Contact us at:

www.dupont.com/water/contact-us

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