Product Data Sheet

DuPont™ AmberLite™ 600i Inert Resin

Uniform Particle Size, Acrylic, Inert Resin for Condensate Polishing for the Power Industry and Industrial Demineralization Applications

Description

DuPont™ AmberLite™ 600i inert resin is a non-functionalized, spherical resin used in mixed beds. Its density and particle size are tightly controlled to have a terminal settling velocity that is intermediate to those of the cation exchange resin and anion exchange resin, creating an inert zone between the functional resins wherein the regenerant is collected. This inert zone reduces the risk of cross-regeneration, improving water quality and rinse time whether it is used in internally- or externally-regenerated mixed bed systems.

AmberLite™ 600i is used in condensate polishing systems for the electrical power generation industry and in other high-purity mixed bed systems.

Applications

- Mixed bed condensate polishing in fossil power plants
- Mixed bed polishing in industrial demineralization

System Designs

- Mixed beds

Historical Reference

DuPont™ AmberLite™ 600i inert resin has previously been sold as DOWEX MONOSPHERE™ 600i inert resin.

Typical Properties

Physical Properties	
Copolymer	Crosslinked acrylic
Type	Inert
Functional Group	None
Physical Form	Brown to amber, opaque, spherical beads
Particle Size [§]	
Particle Diameter	585 ± 65 µm
Uniformity Coefficient	≤ 1.25
< 425 µm	5.0 max
> 800 µm	2.0 max
Density	
Particle Density	1.10 - 1.20 g/mL
Shipping Weight	705 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

Temperature Range	5 – 120°C (41 – 248°F)
pH Range	0 – 14

For additional information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for mixed beds (Form No. 45-D01127-en) or separate beds (Form No. 45-D01131-en) in water treatment, please refer to our Tech Facts.

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Hydraulic Characteristics

Estimated bed expansion of DuPont™ AmberLite™ 600i inert resin as a function of backwash flowrate and temperature is shown in Figure 1.

Estimated pressure drop for AmberLite™ 600i 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.

Figure 1: Backwash Expansion

Temperature = 10 – 60°C (50 – 140°F)

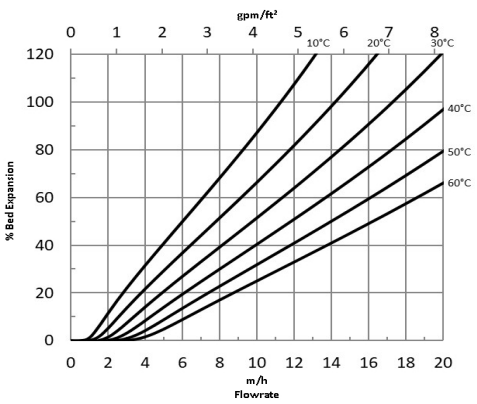
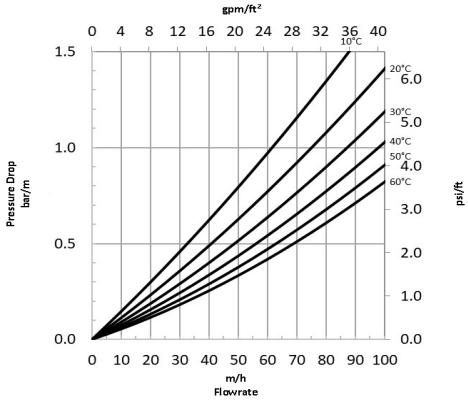


Figure 2: Pressure Drop

Temperature = 10 – 60°C (50 – 140°F)



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.

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Have a question? Contact us at:

www.dupont.com/water/contact-us

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