Product Data Sheet

AMBERLITE™ 600i Inert Resin

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

Description

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Historical Reference

AMBERLITE™ 600i Inert Resin has previously been sold as DOWEX MONOSPHERE™ 600i Inert Resin.

Typical Physical and Chemical Properties**

Physical Properties	
Copolymer	Crosslinked acrylic
Type	Inert
Functional Group	None
Physical Form	Brown to amber, opaque, spherical beads
Particle Size	
Particle Diameter §	600 ± 50 µm
Uniformity Coefficient	≤ 1.2
Density	
Particle Density	1.15 g/mL
Shipping Weight	705 g/L

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

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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. 177-03705) or separate beds (Form No. 177-03729) in water treatment, please refer to our Tech Facts.

Hydraulic Characteristics

Estimated bed expansion of 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)

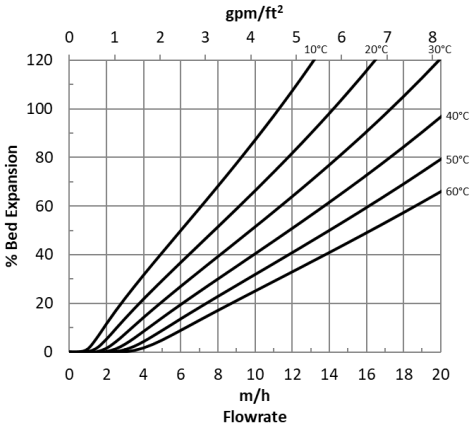
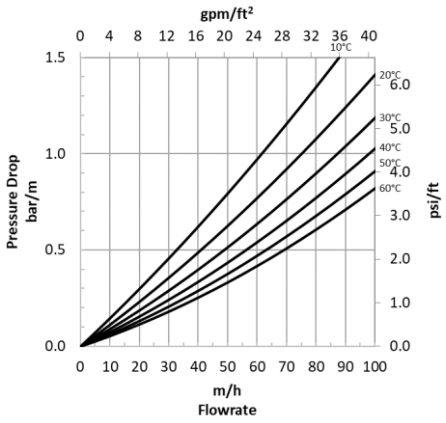


Figure 2: Pressure Drop

Temperature = 10 – 60°C (50 – 140°F)



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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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