

Product Data Sheet

AmberLite™ 14i Inert Resin

Polypropylene, Inert Resin for Industrial Demineralization Applications

Description

AmberLite[™] 14i Inert Resin is a floating, non-functionalized, transparent, cylindrical-shaped resin specifically designed for use as an upper layer in down-flow regenerated ion exchange systems, such as floating beds. This inert resin has a specific gravity lower than water, which ensures it will stay above the ion exchange resin bed. The inert forms a protective layer to prevent plugging of the distribution nozzles during the compaction/bed-lift step in case fines are present in the resin bed.

Use of AmberLite[™] 14i is optional in AMBERPACK[™] Ion Exchange Systems with AmberLite[™] HPR packed bed resins installed.

Applications

Demineralization

System Designs

- Packed beds
 - for AMBERPACK™ Systems or other down-flow regenerated packed bed systems
- Counter-current / Air hold-down

Historical Reference

AmberLite™ 14i Inert Resin has previously been sold as AmberLite™ RF14 Inert Resin.

Typical Properties

Physical Properties			
Polymer	Polypropylene		
Туре	Inert		
Functional Group	None		
Physical Form	Colorless, translucent, cylinders		
Particle Size			
Particle Diameter	1.2 – 1.5 mm		
Particle Length	1.3 – 1.7 mm		
Density			
Particle Density	0.95 g/mL		
Shipping Weight	500 – 580 g/L		
Temperature Range	5-100°C (41-212°F)		
pH Range	0 – 14		

Suggested Operating Conditions

For additional information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for <u>separate beds</u> (Form No. 45-D01131-en) in water treatment, please refer to our Tech Fact.

Hydraulic Characteristics

Estimated pressure drop for AmberLite[™] 14i Inert Resin as a function of service flowrate and temperature is shown in Figure 1a and a magnified scale of the same is shown in Figure 1b. These estimated pressure drop expectations are valid at the start of the service run with clean water and a well-classified bed.

Figure 1a: Pressure Drop

Temperature = $10 - 60^{\circ}$ C ($50 - 140^{\circ}$ F)

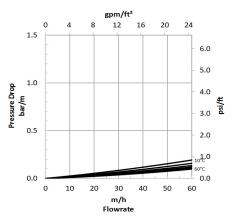
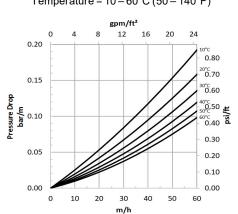


Figure 1b: Pressure DropTemperature = 10 – 60°C (50 – 140°F)



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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 a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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