



## 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### Historical Reference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 Physical and Chemical Properties\*\*

<b>Physical Properties</b>	
Polymer	Polypropylene
Type	Inert
Functional Group	None
Physical Form	Colorless, translucent, cylinders
<b>Particle Size</b>	
Particle Diameter	1.2 – 1.5 mm
Particle Length	1.3 – 1.7 mm
<b>Density</b>	
Particle Density	0.95 g/mL
Shipping Weight	500 – 580 g/L

## Suggested Operating Conditions\*\*

Temperature Range	5 – 100°C (41 – 212°F)
pH Range	0 – 14

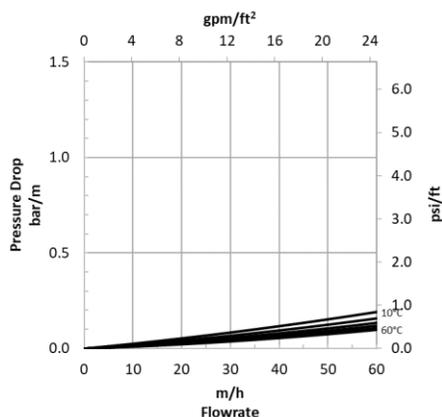
For additional information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for [separate beds](#) (Form No. 177-03729) in water treatment, please refer to our Tech Fact.

## 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.

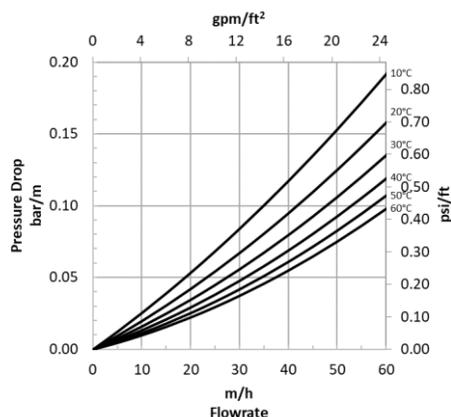
**Figure 1a: Pressure Drop**

Temperature = 10 – 60°C (50 – 140°F)



**Figure 1b: 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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