



Product Data Sheet

AmberLite™ PSR2 Plus Ion Exchange Resin

Drinking Water-grade, Uniform Particle Size, Gel, Strong Base Anion Resin for Selective Perchlorate Removal

Description

AmberLite™ PSR2 Plus Ion Exchange Resin is a strong base anion exchange resin for the selective removal of perchlorate and per- and polyfluoroalkyl substances (PFAS) from potable water.

The resin offers exceptional selectivity for perchlorate and a high affinity for PFAS. The physical characteristics of AmberLite™ PSR2 Plus, a gel resin with a uniform particle size, afford high operating capacity and lower pressure losses compared to conventional perchlorate removal resins.

Applications

- Potable water treatment
 - Perchlorate removal
 - Per- and polyfluoroalkyl substances (PFAS) removal

Typical Properties

Physical Properties

Copolymer	Styrene-divinylbenzene
Matrix	Gel
Type	Strong base anion
Functional Group	Tri-n-butyl amine
Physical Form	White to yellow, translucent, spherical beads

Chemical Properties

Ionic Form as Shipped	Cl ⁻
Total Exchange Capacity	≥ 0.7 eq/L
Water Retention Capacity	25 – 35%

Particle Size[§]

Particle Diameter	700 ± 50 µm
Uniformity Coefficient	≤ 1.1
< 300 µm	≤ 1%

Stability

Whole Uncracked Beads	≥ 95%
Friability	
> 200 g/bead	≥ 90%

Density

Shipping Weight	690 g/L
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§ For additional particle size information, please refer to the [Particle Size Distribution Cross Reference Chart](#) (Form No. 45-D00954-en).

Suggested Operating Conditions

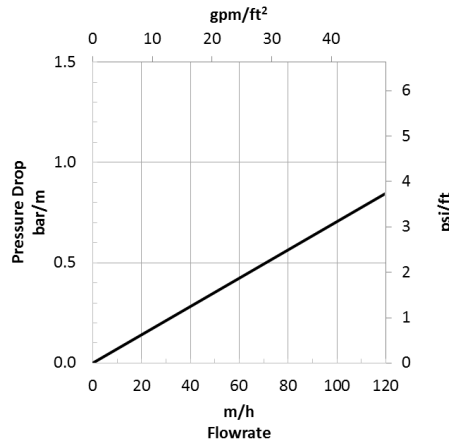
Maximum Operating Temperature	60°C (140°F)
pH Range	0 – 14

Hydraulic Characteristics

Estimated pressure drop for AmberLite™ PSR2 Plus Ion Exchange Resin as a function of service flowrate at 20°C (68°F) is shown in Figure 1. These pressure drop expectations are valid at the start of the service run with clean water. Estimated pressure drop at other water temperatures can be calculated with the provided equations.

Figure 1: Pressure Drop

Temperature = 20°C (68°F)



For other temperatures use:

$$P_T = P_{20^\circ\text{C}} / (0.026T_{\text{C}} + 0.48)], \text{ where } P \equiv \text{bar/m}$$

$$P_T = P_{68^\circ\text{F}} / (0.014T_{\text{F}} + 0.05)], \text{ where } P \equiv \text{psi/ft}$$

Conditioning and Limits of Use

AmberLite™ PSR2 Plus Ion Exchange Resin is suitable for use in potable water applications ¹ after an initial commissioning pretreatment at ambient temperature.

¹ Please confirm the regulatory approval in your specific country of use.

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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.

Regulatory Note

These products 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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