

**DOWEX™ PSR-2**

A Strong Base Anion Exchange Resin Designed for the Selective Removal of Trace Contaminants from Potable Water

Product	Type	Matrix	Functional group
DOWEX™ PSR-2	Tri-n-butyl amine	Styrene-DVB, gel	Quaternary amine

Guaranteed Sales Specifications		Cl ⁻ form
Total exchange capacity, min.	eq/L kgr/ft ³ as CaCO ₃	0.65 14.2
Water content	%	40.0 - 47.5
Bead size distribution†		
% on 16 mesh, max.	%	3
% through 40 mesh, max.	%	5
Whole uncracked beads, min.	%	95
Crush strength (>200 g/bead, min.)	%	90

Typical Physical and Chemical Properties		Cl ⁻ form
Particle density	g/mL	1.10
Shipping weight**	g/L lbs/ft ³	670 42

Recommended Operating Conditions

- Maximum operating temperature 60°C (140°F)
- pH range 0 - 14
- Service flow rate 0.5 - 12 gpm/ft³
- Service linear velocity 1.0 - 22 gpm/ft²
- Bed depth, min.:
 Single bed 800 mm (2.6 ft)

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

** As per the backwashed and settled density of the resin, determined by ASTM D-2187.

Typical Properties and Applications

DOWEX™ PSR-2 is a gellular strong base anion resin supplied in the Cl⁻ form. It is designed to offer the highest selectivity for trace contaminants such as nitrate and perchlorate, while its gellular structure also achieves high total exchange capacity.

Applications include:

- Perchlorate retention and removal
- Gold recovery

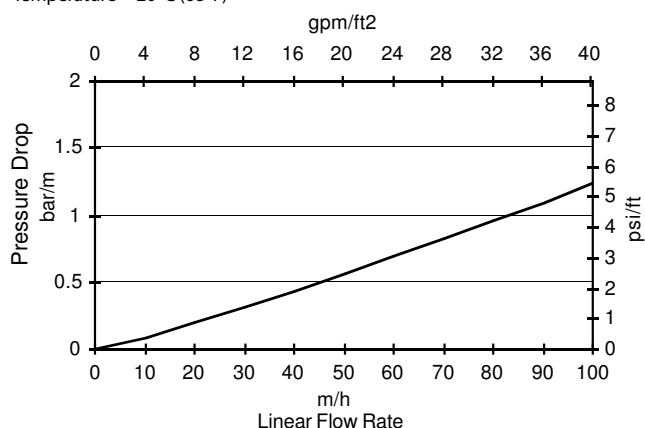
This product has been certified under ANSI Standard 61.

Packaging

5 cubic feet fiber drums

Figure 1. Pressure Drop Data

Temperature = 20°C (68°F)



For other temperatures use:

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

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

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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