

**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

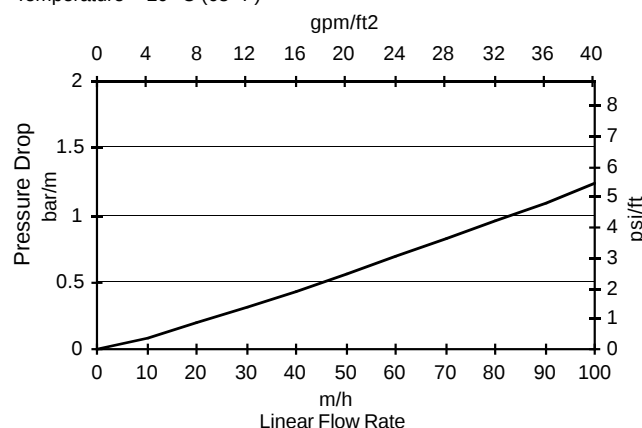
This product has been certified under ANSI Standard 61.

Packaging

5 cubic feet fiber drums

Figure 1. Pressure Drop Data

Temperature = 20° C (68° F)



For other temperatures use:

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

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

DOWEX™ Ion Exchange Resins

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.

Notice: No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

