



DOWEX™ MONOSPHERE™ 600BB Inert Resin

A Uniform Particle Size Inert Resin for use in Mixed Bed Demineralization and Condensate Polishing Applications

Product	Type	Matrix	Functional group
DOWEX™ MONOSPHERE™ 600BB	Inert	Styrene-DVB-acrylate terpolymer	None

Guaranteed Sales Specifications

Bead size distribution range†		
Mean particle size	μm	600 ± 50
Uniformity coefficient, max.		1.1
Specific gravity @ 77°F		1.14 - 1.16

Typical Physical and Chemical Properties

Particle density	g/mL	1.15
Shipping weight**	g/L	670
	lbs/ft³	42

Recommended Operating Conditions

- Maximum operating temperature 60°C (140°F)
- pH range 0 - 14
- Bed depth, min. 150 mm (0.5 ft)

Typical Properties and Applications

DOWEX MONOSPHERE 600BB inert resin is a non-functionalized resin used to enhance separation of mixed beds during regeneration. Its density is between the densities of strong acid cation exchange resin and strong base anion exchange resin. It also has a tightly controlled, uniform particle size. These combined properties ensure the terminal settling velocity is intermediate to that of the cation and anion resins creating an inert "Buffer Zone" between the functional resins following backwash. Separation of the two functional components of a mixed bed reduces the risk of crossregeneration, improving water quality and reducing rinse time.

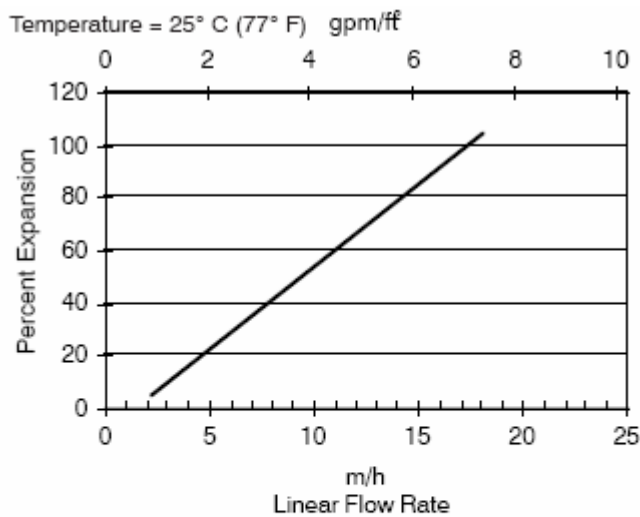
Packaging

25 liter bags or 5 cubic foot fiber drums

† 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.

Figure 1. Backwash Expansion Data



For other temperatures use:

$$F_T = F_{77^\circ F} [1 + 0.008 (T_F - 77)], \text{ where } F \equiv \text{gpm/ft}^2$$

$$F_T = F_{25^\circ C} [1 + 0.008 (1.8T_C - 45)], \text{ where } F \equiv \text{m/h}$$

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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