



DOWEX MB-40

A Ready-for-use Non-regenerable Mixed Bed Resin for Production of High Quality Water in Lab and Industrial Applications

Product	Resin ratio	Matrix	Functional group
DOWEX* MB-40	1:1 by volume, cation:anion	Styrene-DVB gel	Sulfonic acid, quaternary amine

Guaranteed Sales Specifications		OH ⁻ form	H ⁺ form
Total exchange capacity, min.	eq/l	0.8	1.5
	kgr/ft ³ as CaCO ₃	17.5	32.8
Water content	%	70 max.	40-60
Bead size distribution†:			
0.3-1.2 mm, min.	%	80	80
Conversion (OH), min.	%	90	—

Typical Physical and Chemical Properties		OH ⁻ form	H ⁺ form
Particle density	g/ml	1.08	1.22
Shipping weight	g/l	720	720
	lbs/ft ³	45	45

Recommended Operating Conditions

- Maximum operating temperature 60°C (140°F)
- pH range 0-14
- Bed depth, min. 800 mm (2.6 ft)
- Flow rates:
 - Service/fast rinse 5-50 m/h (2-20 gpm/ft²)
 - Backwash 10-15 m/h (4-6 gpm/ft²)
 - Regeneration/displacement rinse 2-10 m/h (0.8-4 gpm/ft²)
- Total rinse requirement 3-6 Bed volumes
- Operating capacity, typical 0.4 eq/l (11 kgr/ft³ as CaCO₃)
- Treated water quality, typical
 - Conductivity < 0.2 μS/cm
 - Silica 20-30 ppb

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

Typical Properties and Applications

DOWEX MB-40 resin is a ready-to-use non-regenerable mixture of DOWEX cation exchange resin and DOWEX anion exchange.

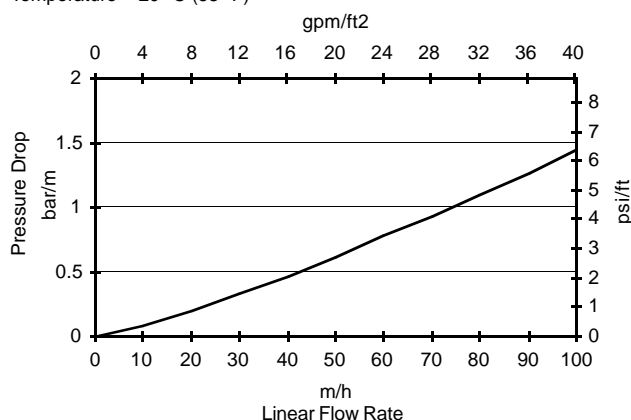
DOWEX MB-40 resin is used for production of high quality water for laboratory and industrial use.

Packaging

25 liter bags

Figure 1. Pressure Drop Data

Temperature = 20° C (68° F)



For other temperatures use:

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

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

DOWEX Ion Exchange Resins For more information about DOWEX resins, call the Dow Liquid Separations business:

North America: 1-800-447-4369
Latin America: (+55) 11-5188-9277
Europe: (+32) 3-450-2240
Japan: (+81) 3-5460-2100
Australia: (+61) 3-9226-3545
<http://www.dowex.com>

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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