



DOWEX MARATHON MR-3

Uniform Particle Size, High Capacity, Mixed Ion Exchange Resin for Demineralization

Product	Resin Ratio	Matrix	Functional group
DOWEX* MARATHON* MR-3	1:1 by equivalents cation:anion	Styrene-DVB, gel	Sulfonic acid and quaternary amine

Guaranteed Sales Specifications		OH ⁻ form	H ⁺ form
Total exchange capacity, min.	eq/l	1.0	1.8
	kgr/ft ³ as CaCO ₃	21.9	39.3
Water content	%	60 - 72	50 - 56
Uniformity coefficient, max.		1.1	1.1
Whole uncracked beads, min.	%	90	90

Typical Physical and Chemical Properties		OH ⁻ form	H ⁺ form
Mean particle size [†]	µm	610 ± 50	600 ± 50
Particle density	g/ml	1.06	1.20
Shipping weight	g/l		720
	lbs/ft ³		45

Recommended Operating Conditions	
Maximum operating temperature	60°C (140°F)
pH range	0-14
Bed depth, min.	800 mm (2.6 ft)

[†]For additional particle size information, please refer to the Particle Size Distribution Cross Reference Chart (Form No. 177-01775/CH 171-476-E).

DOWEX

Ion Exchange Resins

For more information about DOWEX resins,
call Dow Liquid Separations business:

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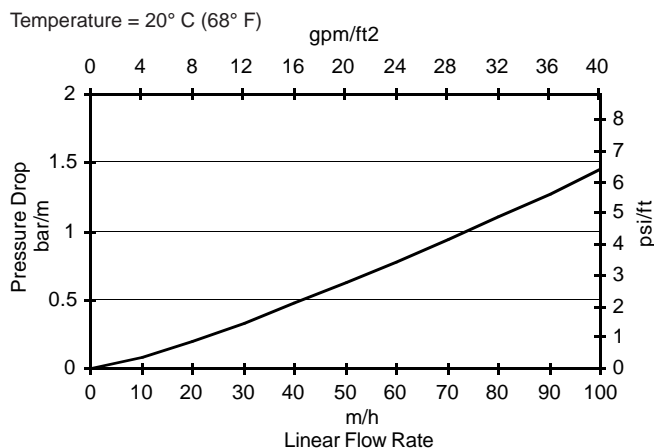
Typical properties and applications:

DOWEX MARATHON MR-3 ion exchange resin is a 1:1 equivalent mixture of DOWEX MARATHON A (OH) anion and DOWEX MARATHON C (H) cation resins. This product is a ready-to-use regenerable uniform particle size mixed resin for demineralization.

Packaging

25 liter bags or 5 cubic feet fiber drums.

Figure 1. Pressure Drop Data



For other temperatures use:

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

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

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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