



DOWEX UPCORE Mono MA-600

Uniform Particle Size, Macroporous, Strong Base Anion Exchange Resin

Product	Type	Matrix	Functional group
DOWEX* UPCORE* Mono MA-600	Type 1 strong base	Styrene-DVB, macroporous	Quaternary amine

Guaranteed Sales Specifications		Cl ⁻ form
Total exchange capacity, min.	eq/l kgr/ft ³ as CaCO ₃	1.1 24.0
Water content	%	55 - 65
Bead size distribution [†]		
Mean particle size	µm	640 ± 50
Uniformity coefficient, max.		1.1
>850µ, max.	%	5
<300µ, max.	%	0.5
Whole beads, min.	%	95

Typical Physical and Chemical Properties		Cl ⁻ form
Total swelling (Cl ⁻ → OH ⁻)	%	15
Particle density	g/ml	1.06
Shipping weight	g/l lbs/ft ³	670 42

Recommended Operating Conditions	
Maximum operating temperature:	
OH ⁻ form	60°C (140°F)
Cl ⁻ form	100°C (212°F)
pH range	0-14
Bed depth, min.	1500 mm (4 ft)
Pressure drop, design max.	1.5 bar (22 psi)
Pressure drop, max.	2.5 bar (37 psi)
Flow rates:	
Service/fast rinse	5-50 m/h (2-20 gpm/ft ²)
Regeneration/displacement rinse	6-12 m/h (2.4-4.8 gpm/ft ²)
Total rinse requirement	2-4 Bed volumes
Regenerant	2-4% NaOH
Organic loading, max.	5 g KMnO ₄ /l resin

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

Typical properties and applications:

DOWEX UPCORE Mono MA-600 uniform particle size macroporous strong base anion resin is designed for use in a packed bed counter-current regeneration system. The particle size is specially selected to give a high degree of compaction prior to regeneration and to minimize pressure drop across the bed. The macroporous structure of this resin

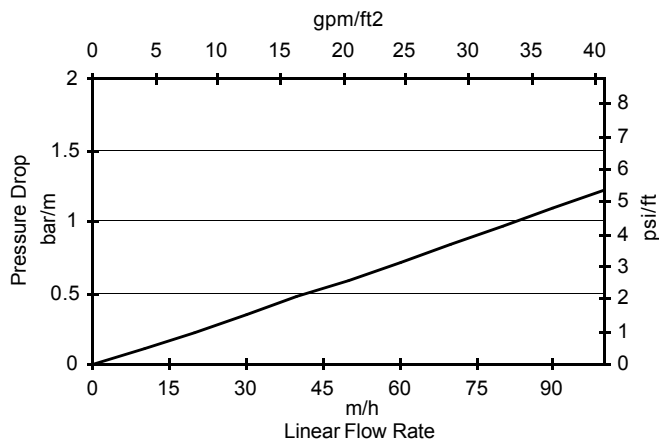
makes it the resin of choice in treating waters with high level of organic matter if operating capacity is not of high concern.

Packaging

25 liter or 5 cubic feet fiber drums.

Figure 1. Pressure Drop Data

Temperature = 20° C (68° F)



For other temperatures use:

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

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

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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