



Tel: +44 (0) 1706 869777
 E-mail: sales@desal.co.uk
 Web: www.desal.co.uk

DOWEX™ UPCORE™ Mono A2-500

A Uniform Particle Size, Type 2 Strong Base Anion Exchange Resin Specifically Designed for the UPCORE System

Product	Type	Matrix	Functional group
DOWEX™ UPCORE™ Mono A2-500	Type 2 strong base anion	Styrene-DVB, gel	Dimethylethanol amine

Guaranteed Sales Specifications		Cl ⁻ form
Total exchange capacity, min.	eq/L	1.2
	kgr/ft ³ as CaCO ₃	26.2
Water content	%	46 - 55
Bead size distribution†		
Mean particle size	µm	550 ± 50
Uniformity coefficient, max.		1.1
> 850 µm, max.	%	5
< 300 µm, max.	%	0.5
Whole uncracked beads, min.	%	95

Typical Physical and Chemical Properties		Cl ⁻ form
Total swelling (Cl ⁻ → OH ⁻)	%	15
Particle density	g/mL	1.09
Shipping weight**	g/L	690
	lbs/ft ³	43

Recommended Operating Conditions

- Maximum operating temperature:
 - OH⁻ form 35°C (95°F)
 - Cl⁻ form 70°C (160°F)
- pH range 0 - 14
- Bed depth, min. 1,200 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 - 60 m/h (2 - 24 gpm/ft²)
 - Regeneration/displacement rinse 4 - 10 m/h (1.6 - 4 gpm /ft²)
- Total rinse requirement 2 - 4 Bed volumes
- Regenerant 2-5% NaOH

† 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™ UPCORE™ Mono A2-500 strong base anion resin is a uniform particle size, gellular, type 2 anion resin designed for use in the UPCORE system. It has a special pore structure which facilitates the removal of organic matter from water and its subsequent elution from the resin.

The absence of large beads in DOWEX UPCORE Mono A2-500 resin results in extremely high operating capacity and good chemical efficiency.

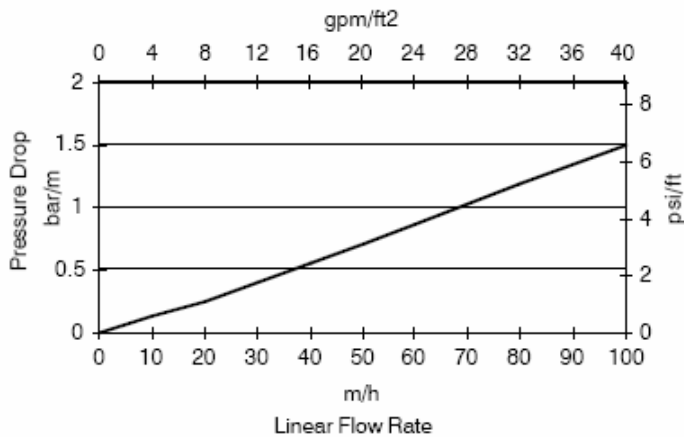
DOWEX UPCORE Mono A2-500 resin has an excellent resistance to mechanical and osmotic stress which helps minimize resin attrition.

Packaging

25 liter bags or 5 cubic feet fiber drums

Figure 1. Pressure Drop Data

Temperature = 20° C (68° F)



For other temperatures use:

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

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

DOWEX™ Ion Exchange Resins

For more information about DOWEX resins, call the Dow Water Solutions business:

North America: 1-800-447-4369
Latin America: (+55) 11-5188-9222
Europe: (+32) 3-450-2240
Pacific: +60 3 7958 3392
Japan: +813 5460 2100
China: +86 21 2301 9000
<http://www.dowwatersolutions.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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