



DOWEX MONOSPHERE 550A LC NG (OH)

A Uniform Particle Size Strong Base Anion Exchange Resin for Non-Regenerable
Demineralizers in Nuclear Water Applications

Product	Type	Matrix	Functional group
DOWEX™ MONOSPHERE™ 550A LC NG (OH)	Type I strong base anion	Styrene-DVB, gel	Quaternary amine

Guaranteed Sales Specifications							OH ⁻ form				
Total exchange capacity, min.				eq/L			1.1				
				kgr/ft ³ as CaCO ₃			24.0				
Water content				%			55 - 65				
Bead size distribution†											
Mean particle size				μm			590 ± 50				
Uniformity coefficient, max.							1.1				
< 300 μm, max.				%			0.2				
Whole uncracked beads, min.				%			95				
Crush strength											
Average, min.				g/bead			350				
> 200 g/bead, min.				%			95				
Ionic conversions				OH ⁻		Cl ⁻		CO ₃ ⁻		SO ₄ ⁼	
				95% min.		0.1% max.		5% max.		0.1% max.	
Trace metals, ppm dry resin, max.											
Na	Fe	Cu	Al	Mg	Ca	Co	Pb	Hg	Heavy metals (as Pb)		
40	50	10	50	50	50	30	10	10	10		

Typical Physical and Chemical Properties					OH ⁻ form				
Particle density					g/mL				
Shipping weight					g/L				
					lbs/ft ³				

Recommended Operating Conditions

- Maximum operating temperature 60°C (140°F)
- pH range 0 - 14
- Bed depth, min.:
 - Mixed bed 450 mm (1.5 ft)
 - Single bed 800 mm (2.6 ft)

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

Typical Properties and Applications

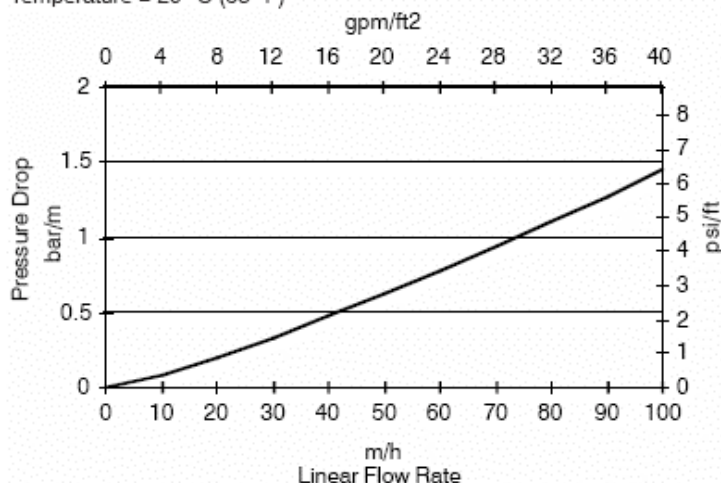
DOWEX MONOSPHERE 550A LC NG (OH) anion resin has outstanding purity and performance. The uniform particle size and absence of fine beads result in a low pressure drop. It also has excellent physical stability and low metallic impurity levels.

Packaging

50 liter or 5 cubic foot 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

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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