



## 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 <sup>-</sup> form							
Total exchange capacity, min.	eq/L kgr/ft <sup>3</sup> as CaCO <sub>3</sub>	1.1 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 <sup>-</sup> 95% min.	Cl <sup>-</sup> 0.1% max.	CO <sub>3</sub> <sup>2-</sup> 5% max. SO <sub>4</sub> <sup>2-</sup> 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 <sup>-</sup> form
Particle density	g/mL	1.08
Shipping weight	g/L lbs/ft <sup>3</sup>	640 40

### 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

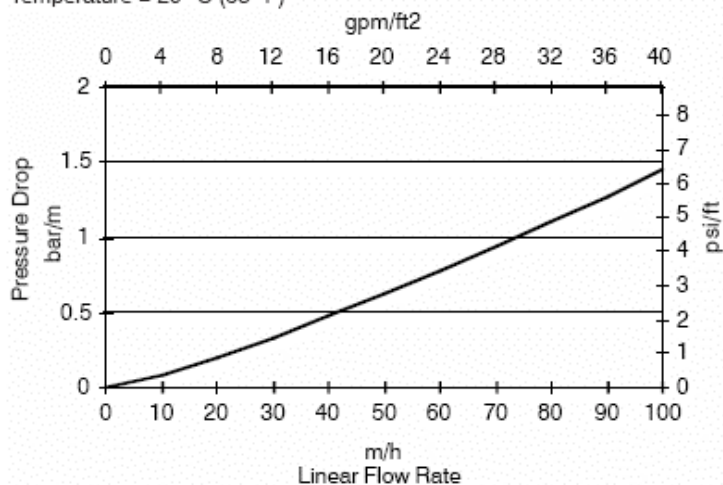
DOWEX MONOSPHERE 550A LC NG (OH) anion resin has outstanding purity and performance. The uniform particle size and absence of fine beads result in a low pressure drop. It also has excellent physical stability and low metallic impurity levels.

## 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 For more information about DOWEX resins, call the Dow Liquid Separations 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  
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<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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