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DOWEX™ SBR LC NG (OH)

A High Capacity Strong Base Anion Exchange Resin Designed for CVCS and Radwaste Demineralizers in Nuclear Power Systems

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

Guaranteed Sales Specifications		OH^- form
Total exchange capacity, min.	eq/L	1.2
	kgr/ft³ as $CaCO_3$	26.2
Water content	%	60 max.
Bead size distribution†		
> 1,200 µm, max. (16 mesh)	%	2
> 420 µm, max. (40 mesh)	%	1
< 300 µm, max. (50 mesh)	%	0.2
Whole uncracked beads, min.	%	95
Crush strength		
Average, min.	g/bead	350
> 200 g/bead, min.	%	95

Ionic conversion

OH^-	Cl^-	CO_3^-	SO_4^{2-}
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	1.08
Shipping weight**	g/L	655
	lbs/ft³	41

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).

** As per the backwashed and settled density of the resin, determined by ASTM D-2187.

Typical properties and applications

DOWEX™ SBR LC NG (OH) resin is a high quality anion resin with very good mechanical and chemical resistance. It is supplied with a low level of residual chloride and sulfate, each less than 0.1% of exchangeable sites. The resin can be used in a variety of applications, either in single or mixed beds.

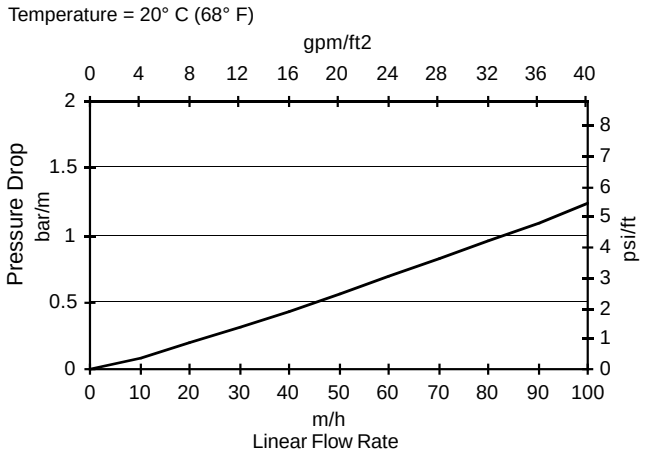
Applications include:

- Boric acid recovery
- Radwaste decontamination
- Reactor coolant treatment

Packaging

50 liter or 5 cubic feet fiber drums

Figure 1. Pressure Drop Data



For other temperatures use:

$P_T = P_{20°C} / (0.026\ T_{°C} + 0.48)$, where P ≡ bar/m

$P_T = P_{68°F} / (0.014\ T_{°F} + 0.05)$, where P ≡ psi/ft

Form No. 177-01643-0209