LENNTECH
info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289

DOWEX™ MONOSPHERE™ MR-575 LC NG

Uniform Particle Size Mixed Bed Resin for Demineralization in Nuclear Water Applications

Product	Type	Matrix	Functional group
DOWEX™ MONOSPHERE™ MR-575 LC NG	1:1 by equivalent cation:anion	Styrene-DVB, gel	Sulfonic acid Quaternary amine

Guaranteed Sales Specifications		OH^- form	H^+ form
Total exchange capacity, min.	eq/L	1.1	2.3
	kgr/ft³ as $CaCO_3$	24.0	50.3
Water content	%	55 - 65	41 - 46
Bead size distribution†			
Mean particle size	µm	590 ± 50	550 ± 50
<0.3 mm, max., uniformity coefficient, max.		1.1	1.1
<300 µm, max.	%	0.2	0.2
Whole uncracked beads, min.	%	95	95
Crush strength			
Average, min.	g/bead	350	500
>200 g/bead, min.	%	95	95

Ionic conversions

Cation resin					H^+ 99.7% min.
Anion resin	OH^- 95% min.	Cl^- 0.1% max.	CO_3^- 5% max.	SO_4 0.1% max.	

Trace metals, ppm dry resin, max.

	Na	Fe	Cu	Al	Mg	Ca	Co	Pb	Hg	Heavy Metals (as Pb)
Cation	20	25	10	15	–	–	8	20	15	–
Anion	40	50	10	50	50	50	30	10	10	10

Typical Physical and Chemical Properties		OH^- form	H^+ form
Particle density	g/mL	1.08	1.22
Shipping weight**	g/L	705	705
	lbs/ft³	44	44

Recommended Operating Conditions

- Maximum operating temperature: 60°C (140°F)
- pH range: 0-14
- Bed depth, min.: 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

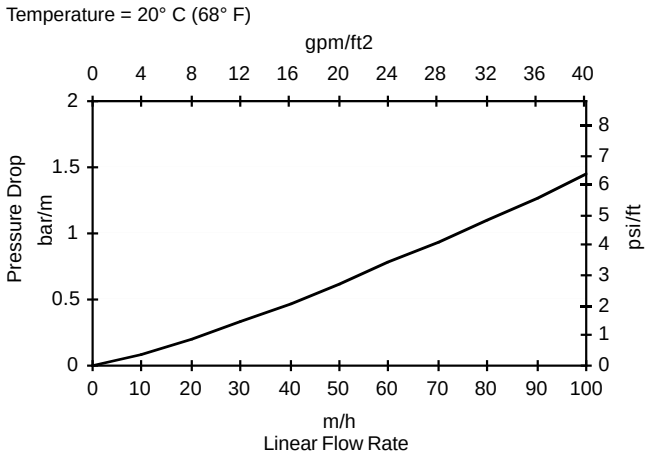
DOWEX™ MONOSPHERE™ MR-575 LC NG uniform particle size mixed resin has outstanding purity to meet the requirements of high quality water applications such as the nuclear industry. It is a 1:1 stoichiometric mixture of DOWEX MONOSPHERE 575C NG (H) and DOWEX MONOSPHERE 550A LC NG (OH) resins. It also has excellent physical and chemical stability.

Extremely low levels of residual metallic impurities make this resin well suited for high purity water applications.

Packaging

50 liter or 5 cubic foot 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