Product Data Sheet

DIAION™ UBKN1

DIAION™ UBKN1 is a nuclear grade cation exchange resin with a uniform particle size. It has 14% cross-linkages and excellent properties. It can be used for cleanup system in primary circuit, cleanup system of SFP, radwaste, etc.

Product

Grade Name	DIAION™ UBKN1
Type	Strong Acid Cation
Matrix	Styrene-DVB, Gel
Functional Group	Sulfonic acid
Ionic Form	H^+

Specification

Whole Bead Count	-	90 min.
Salt Splitting Capacity	meq/mL	2.4 min.
Particle Size Distribution thr. 425 µm	%	1.0 max.
Particle Size Distribution 425 - 1180 µm	%	95 min.
Mean Particle Size	µm	650 ± 50
Ionic Form Conversion H Form	eq%	99 min.
Ionic Form Conversion Na Form	eq%	0.1 max.
Metal Content (Ca)	mg/L	50 max.
Metal Content (Pb)	mg/L	10 max.
Metal Content (Fe)	mg/L	50 max.
Metal Content (Cu)	mg/L	10 max.
Water Extractables	g/L-R	0.1 max.

Typical Properties

Shipping Density	g/L	810
Particle Density	g/mL	1.27
Total Swelling (Na^+ to H^+)	%	5

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Recommended Operating Conditions

Maximum Operating Temperature	°C	120
Operating pH Range		0 - 14
Minimum Bed Depth	mm	450
Service Flow Rate	m/h	Fast Rinse 5 - 60
		Condensate Polishing 40 - 150
Regenerant		HCl
		H_2SO_4
Regenerant Concentration	%	HCl 4 - 8
		H_2SO_4 1 - 10
Regenerant Level	g/L	30 - 150
Regenerant Flow Rate	m/h	1 - 10
Total Rinse Requirement	BV	3 - 6

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Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ UBKN1 resin in normal down flow operation is shown in the graphs below.

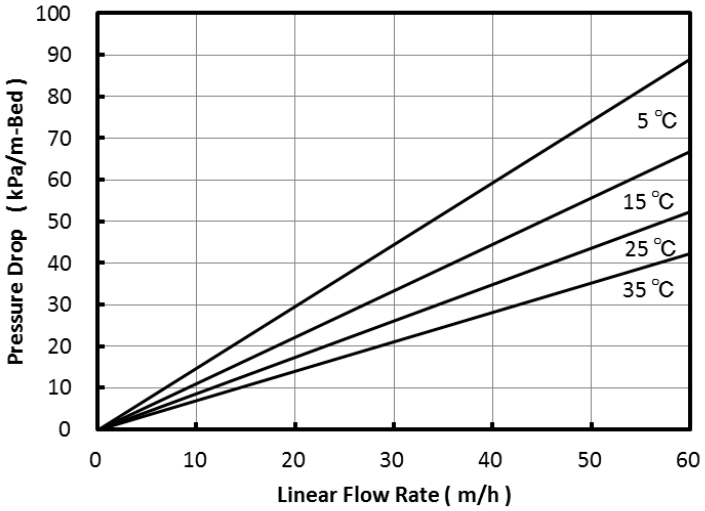

Fig. 1 Pressure Drop of UBKN1

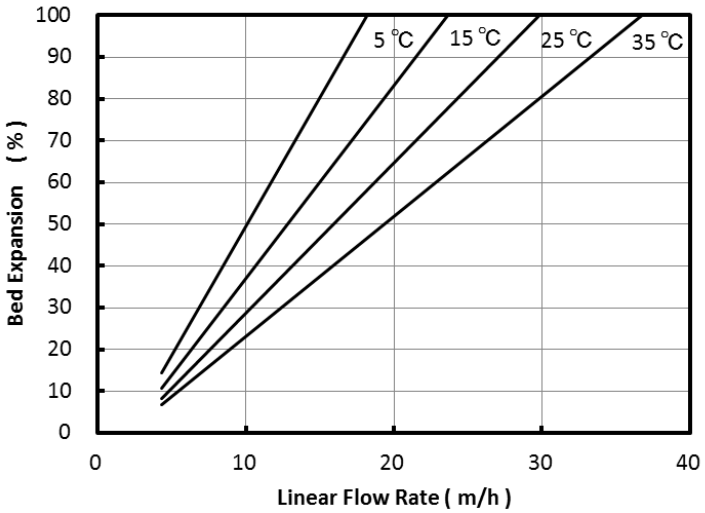

Fig. 2 Bed Expansion of UBKN1

Notice

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