

Product Data Sheet

DIAION™ UBKN1

DIAION™ UBKN1 is a cation exchange resin with a uniform particle size. It has 14% cross-linkages and excellent properties. A wide range of applications, especially in a field of manufacturing and processing pure water in power plants, is recommended.

Product

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

Specification

Whole Bead Count	-	95 min.
Salt Splitting Capacity	meq/mL	2.4 min.
Water Content	%	37 - 43
Average Diameter	μm	650 ± 50
Particle Size Distribution on 850 μm	%	0.5 max.
Particle Size Distribution 425 - 850 μm	%	99 min.
Particle Size Distribution thr. 425 μm	%	2 max.
Uniformity Coefficient	-	1.2 max.
Ionic Conversion (H ⁺)	eq%	99 min.
Ionic Conversion (Na ⁺)	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.
Batch Extractable TOC	mg/L	10 max.

Typical Properties

Shipping Density	g/L	815
Particle Density	g/mL	1.27
Total Swelling (Na ⁺ to H ⁺)	%	5



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DIAION™ UBKN1**Recommended Operating Conditions**

Maximum Operating Temperature	°C	120
Operating pH Range		0 - 14
Minimum Bed Depth	mm	800
Service Flow Rate	m/h	10 - 40
Regenerant		HCl
		H ₂ SO ₄
Regenerant Concentration	%	HCl 4 - 10
		H ₂ SO ₄ 1 - 4
Regenerant Level	g/L	30 - 150
Regenerant Flow Rate	m/h	2 - 10
Total Rinse Requirement	BV	2 - 10



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.

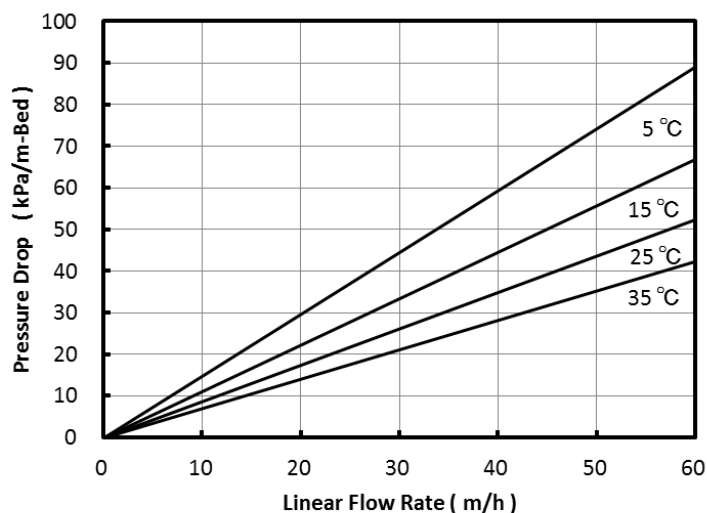


Fig. 1 Pressure Drop of UBKN1

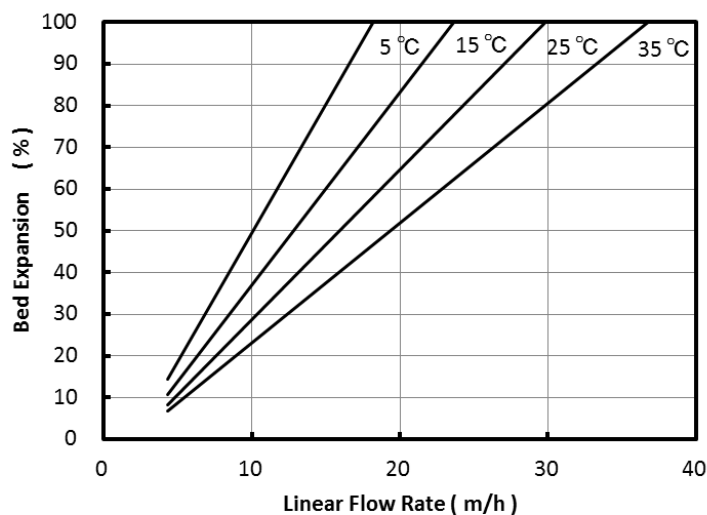


Fig. 2 Bed Expansion of UBKN1

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