

## Product Data Sheet

## DIAION™ UBKN1U

DIAION™ UBKN1U is a cation exchange resin with a uniform particle size. It has 14% cross-linkages and excellent properties. It is recommended for higher purity water treatment application.

## Product

Grade Name	DIAION™ UBKN1U	
Type	Strong Acid Cation	
Matrix	Styrene-DVB, Gel	
Functional Group	Sulfonic acid	
Ionic Form	H <sup>+</sup>	

## Specification

Whole Bead Count	-	95 min.
Salt Splitting Capacity	meq/mL	2.4 min.
Water Content	%	33 - 43
Average Diameter	μm	650 ± 50
Particle Size Distribution on 1180 μm	%	5 max.
Particle Size Distribution thr. 500 μm	%	2 max.
Uniformity Coefficient	-	1.2 max.
Ionic Conversion (H <sup>+</sup> )	eq%	99 min.
Ionic Conversion (Na <sup>+</sup> )	eq%	1.0 max.
Outlet resistivity	MΩ · cm	12 max.
ΔTOC	ppb	50 min.

## Typical Properties

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



**DIAION™ UBKN1U****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 <sub>2</sub> SO <sub>4</sub>
Regenerant Concentration	%	HCl 4 - 10
		H <sub>2</sub> SO <sub>4</sub> 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™ UBKN1U resin in normal down flow operation is shown in the graphs below.

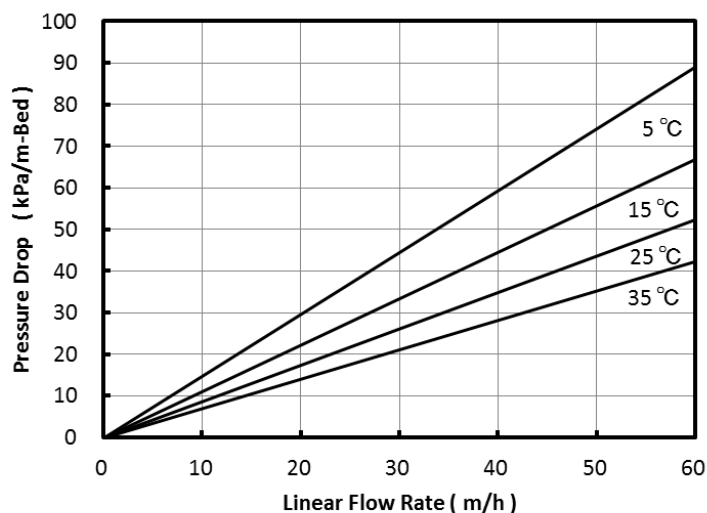


Fig. 1 Pressure Drop of UBKN1U

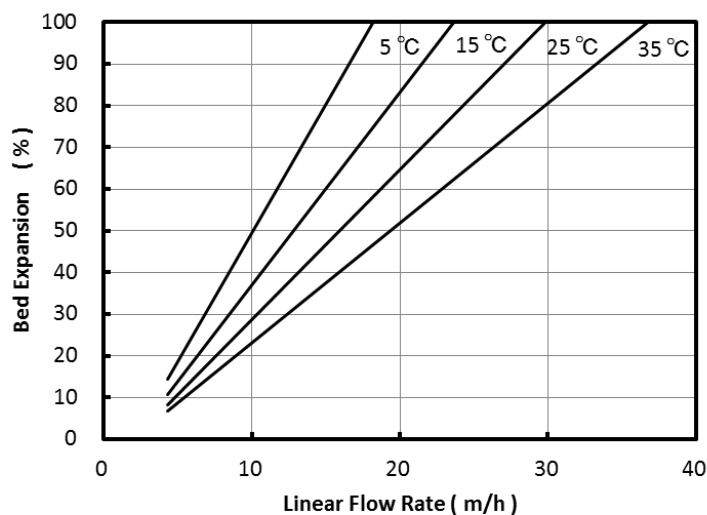


Fig. 2 Bed Expansion of UBKN1U

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