

Product Data Sheet

DIAION™ SKN1

DIAION™ SKN1 is a nuclear grade gel type strongly acidic cation exchange resin. It has standard 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™ SKN1
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	1.7 min.
Particle Size Distribution thr. 425 µm	%	1.0 max.
Particle Size Distribution 425 - 1180 µm	%	95 min.
Ionic Form Conversion (H ⁺)	eq%	99 min.
Ionic Form 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.

Typical Properties

Shipping Density	g/L	790
Water Content	%	54
Mean Particle Size	µm	700
Particle Density	g/mL	1.20
Total Swelling (Na ⁺ to H ⁺)	%	9



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™ SKN1 resin in normal down flow operation is shown in the graphs below.

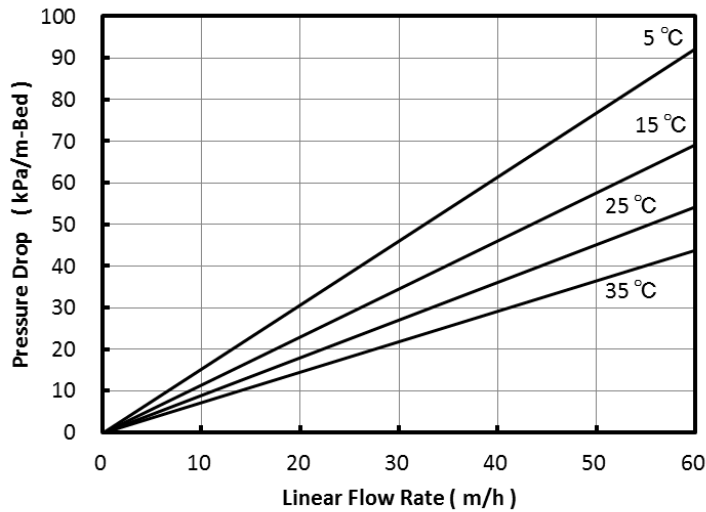


Fig. 1 Pressure Drop of SKN1

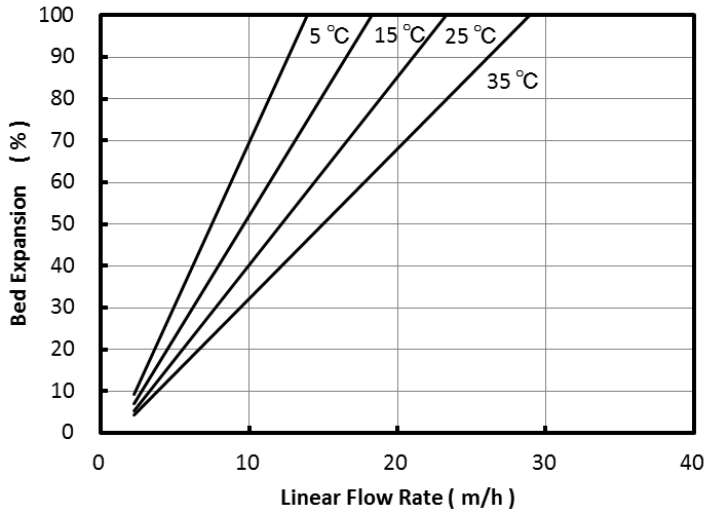


Fig. 2 Bed Expansion of SKN1

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