

Product Data Sheet

DIAION™ SMN3

DIAION™ SMN3 is a nuclear grade mixed resin with strongly acidic cation exchange resin, DIAION™ SKN3, with ⁷Li form, and strongly basic anion exchange resin, DIAION™ SAN1. It is used for cleanup system in primary circuit.

Product

Grade Name	DIAION™ SMN3
Type	Mixed
Matrix	Styrene-DVB, Gel
Functional Group	Sulfonic acid / Type I (trimethyl ammonium groups)
Ionic Form	⁷ Li ⁺ / OH ⁻
Chemical Equivalent Ratio	1 / 1

Specification

Component		Cation Exchange Resin	Anion Exchange Resin
		DIAION™ SKN3	DIAION™ SAN1
Salt Splitting Capacity	meq/mL	1.6 min.	1.0 min.
Particle Size Distribution 425 - 1180 μm	%	95 min.	95 min.
Particle Size Distribution thr. 425 μm	%	1.0 max.	1.0 max.
Ionic Form Conversion Li Form	eq%	99 min.	-
Ionic Form Conversion Na Form	eq%	0.1 max.	-
Ionic Form Conversion OH Form	eq%	-	90 min.
Ionic Form Conversion CO ₃ Form	eq%	-	10 max.
Ionic Form Conversion Cl Form	eq%	-	0.2 max.
Metal Content (Ca)	mg/L	50 max.	50 max.
Metal Content (Pb)	mg/L	10 max.	10 max.
Metal Content (Fe)	mg/L	50 max.	-
Metal Content (Cu)	mg/L	10 max.	-
Water Extractables	g/L-R	0.5 max.	0.1 max.

Typical Properties

Component	Mixed Resin
Shipping Density	g/L 720

Recommended Operating Conditions

Maximum Operating Temperature	°C	60
Operating pH Range		0 - 14
Minimum Bed Depth	mm	800
Service Flow Rate	m/h	10 - 60



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Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ SMN3 resin in normal down flow operation is shown in the graphs below.

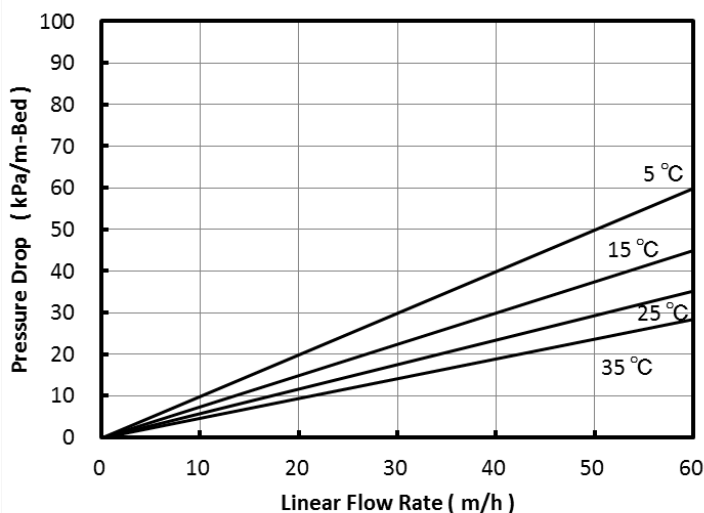


Fig. 1 Pressure Drop of SMN3

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