Product Data Sheet

DIAION™ SMNUPB

DIAION™ SMNUPB is a mixed resin with strongly acidic cation exchange resin, and strongly basic anion exchange resin. It is used for non-regenerable mixed bed ion exchange applications for higher purity water.

Product

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

Specification

Component		Mixed resin
Resistivity within 5 minutes	MΩ·cm	15 min.
Resistivity within 30 minutes	MΩ·cm	17.5 min.

Typical Properties

Component		Mixed resin	
Shipping Density	g/L	710	
Component		Cation exchange resin	Anion exchange resin
Whole Bead Count	-	90 min.	-
Salt Splitting Capacity	meq/mL	1.7 min.	0.9 min.
Water Content	%	50 - 60	62 - 72
Particle Size Distribution on 1180 µm	%	5 max.	5 max.
Particle Size Distribution thr. 300 µm	%	1 max.	1 max.
Mean Particle Size	µm	700	720
Effective Size	mm	0.40 min.	0.40 min.
Uniformity Coefficient	-	1.6 max.	1.6 max.
Ionic Form Conversion (H^+)	eq%	99 min.	-
Ionic Form Conversion (OH^-)	eq%	-	90 min.
Ionic Form Conversion (Cl^-)	eq%	-	1 max.
Particle Density	g/mL	1.20	1.08
Total Swelling (Na^+ to H^+)	%	9	-
Total Swelling (Cl^- to OH^-)	%	-	24

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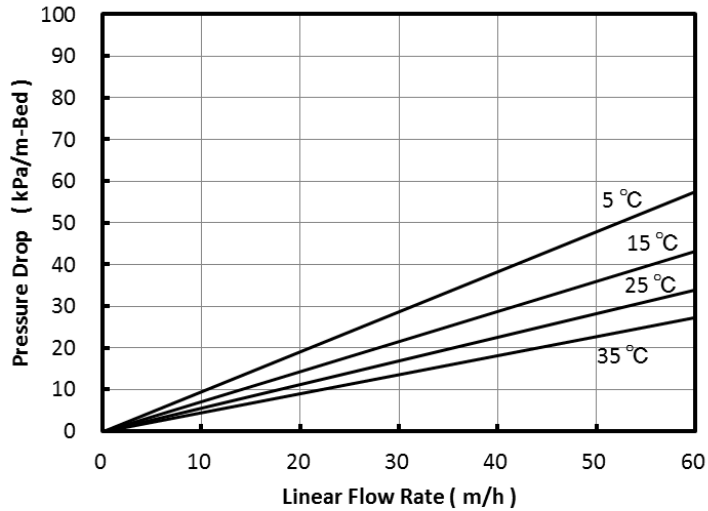

Fig. 1 Pressure Drop of SMNUPB

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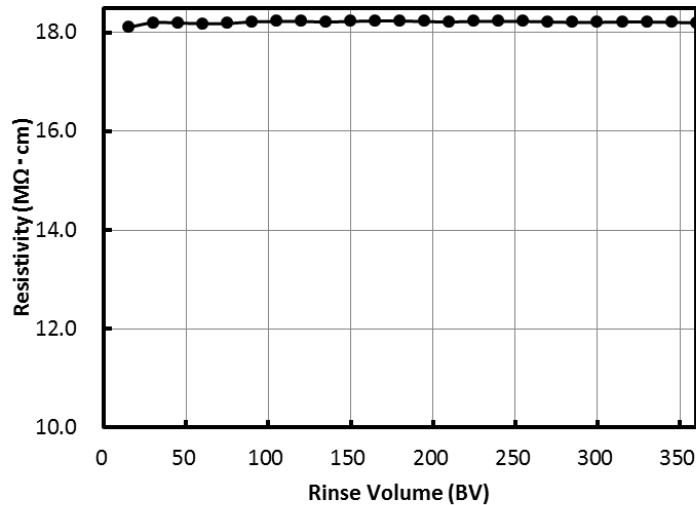Email: info@pyvot.tech
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Rinse Performance

Fig. 2 Resistivity versus Rinse Volume for SMNUPB
Flow rate : SV 30 (15 L/hr), Resin volume : 500 mL-R

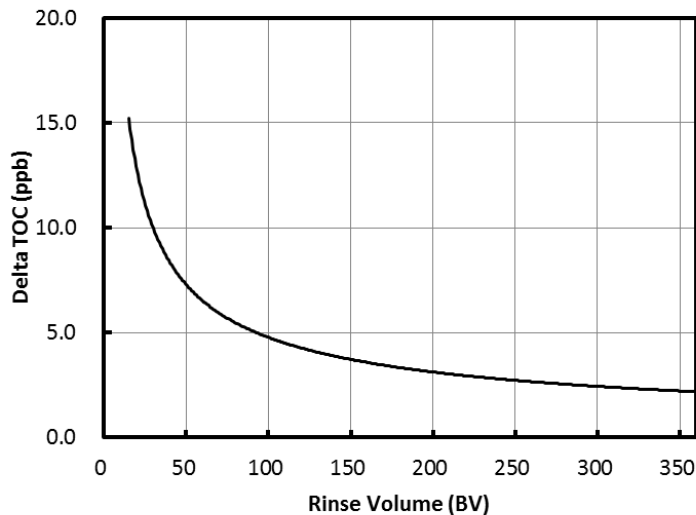**Fig. 3 Delta TOC versus Rinse Volume for SMNUPB**
Flow rate : SV 30 (15 L/hr), Resin volume : 500 mL-R

Notice

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