

## Product Data Sheet

**DIAION™ SAT10L**

DIAION™ SAT10L is a gel type strongly basic anion exchange resin. It has a standard cross-linkages and shows lower TOC leakage. It is recommended for UPW application.

**Product**

Grade Name	DIAION™ SAT10L	
Type	Strong Base Anion	
Matrix	Styrene-DVB, Gel	
Functional Group	Type I (trimethyl ammonium groups)	
Ionic Form	OH <sup>-</sup>	

**Specification**

Color and Shape	- Light Yellow Translucent Beads	
Salt Splitting Capacity	meq/mL	0.9 min.
Water Content	%	62 - 72
Particle Size Distribution on 1180 μm	%	5 max.
Particle Size Distribution thr. 425 μm	%	1 max.
Effective Size	mm	0.45 min.
Uniformity Coefficient	-	1.6 max.
Ionic Form Conversion (OH <sup>-</sup> )	eq%	90 min.
Ionic Form Conversion (Cl <sup>-</sup> )	eq%	1 max.
ΔTOC	ppb	20 max.
Outlet Resistivity	MΩ·cm	15 min.

**Typical Properties**

Shipping Density	g/L	660
Mean Particle Size	μm	720
Particle Density	g/mL	1.07
Total Swelling (Cl <sup>-</sup> to OH <sup>-</sup> )	%	24

**Recommended Operating Conditions**

Maximum Operating Temperature	°C	80 (Cl <sup>-</sup> ) 60 (OH <sup>-</sup> )
Operating pH Range		0 - 14
Minimum Bed Depth	mm	800
Service Flow Rate	BV/h	10 - 60
Regenerant		NaOH
Regenerant Concentration	%	NaOH 2 - 8
Regenerant Level	g/L	50 - 200
Regenerant Flow Rate	BV/h	2 - 8
Total Rinse Requirement	BV	2 - 10

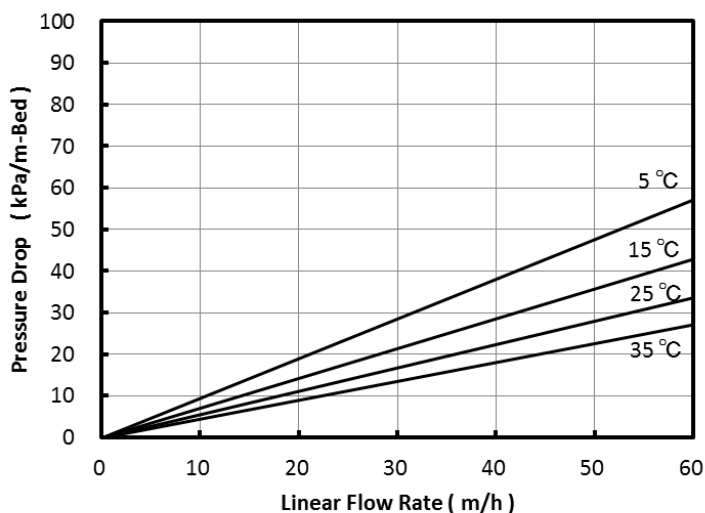
1 BV(Bed Volume)=1 m<sup>3</sup>/m<sup>3</sup>-resin

Mitsubishi Chemical Corporation

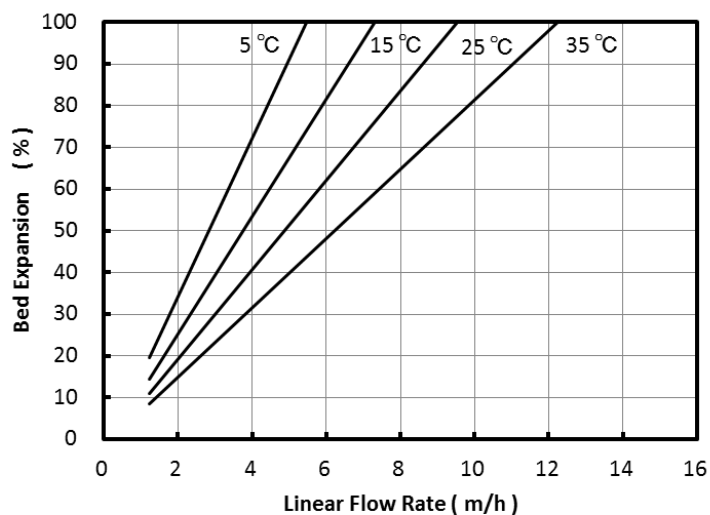
please visit <http://www.diaion.com/en>

### Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ SAT10L resin in normal down flow operation is shown in the graphs below.

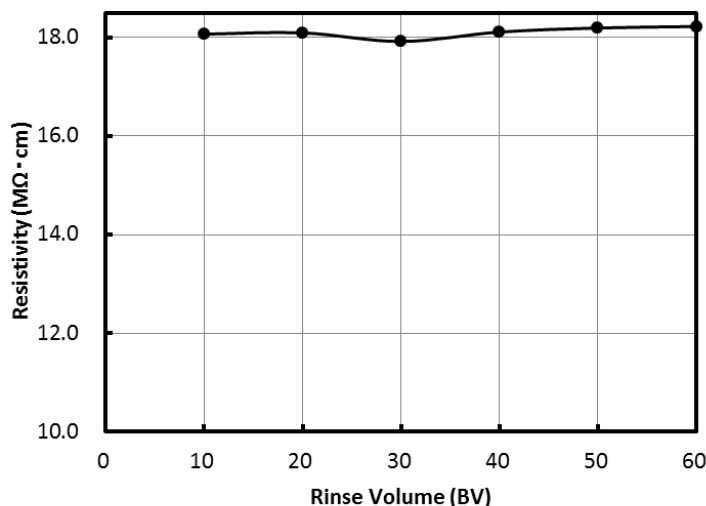


**Fig. 1 Pressure Drop of SAT10L**

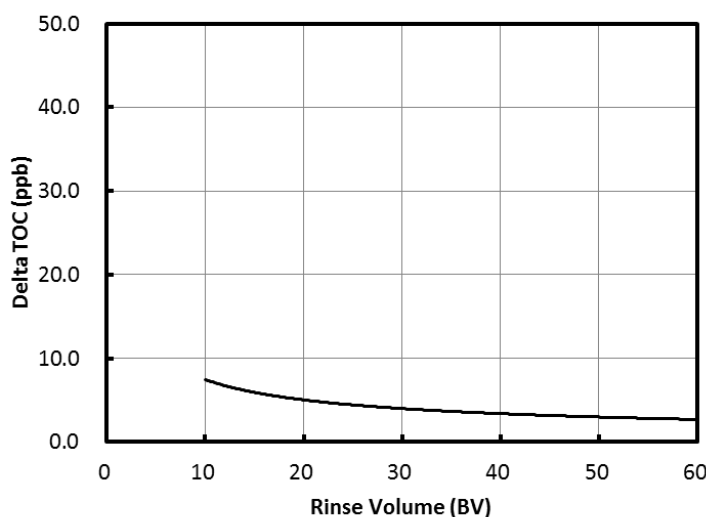


**Fig. 2 Bed Expansion of SAT10L**

## Rinse Performance



**Fig. 3 Resistivity versus Rinse Volume for SAT10L**  
Flow rate : SV 20 (10 L/hr), Resin volume : 500 mL-R



**Fig. 4 Delta TOC versus Rinse Volume for SAT10L**  
Flow rate : SV 20 (10 L/hr), Resin volume : 500 mL-R

## Notice

DIAION™ is a registered trademark of Mitsubishi Chemical Corporation. The information contained herein is believed to be true and accurate, but all data, recommendations and suggestions are provided without guarantee, since the conditions of use are beyond our control and can affect the performance and properties of our products. The user is solely responsible for confirming that our product is suitable for the intended end use, and for compliance with all legal regulations and patents. Other than compliance with published Mitsubishi Chemical Corporation specifications agreed to pursuant to a signed writing during the warranty period, and except as required by law, MITSUBISHI CHEMICAL CORPORATION AND ITS AFFILIATES MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If a product is found to be defective during the warranty period, user's sole remedy and our sole obligation is, at our option, replacement of the affected product or refund of the purchase price. Except as required by law, we are not liable for any damage, harm or loss resulting from our product, whether direct, indirect, consequential, incidental or special, and irrespective of legal theory asserted, including strict liability, contract, warranty, or negligence.