



# DIAION

TDS 02011

DIAION PA308 - Strongly Basic Resin

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## DIAION PA308

DIAION PA308 is a "TYPE I" strongly basic anion exchange resin with a high degree of porosity.

Its porous structure allows a good reversible organic materials adsorption (humic acids, dyestuffs) and offers a good mechanical and osmotic stability. Its composition complies with the existing food processing rules and regulations.

DIAION PA308 can be supplied under request in calibrated screen grades.

This resin is particularly recommended to reduce the organic contaminants in primary and waste water supplies and for dealkalinization of industrial waters.

### TYPICAL CHARACTERISTICS

Matrix	:	Porous copolymer styrene-DVB		
Functional group	:	Trimethylamine		
Colour and physical form	:	Yellowish / white opaque beads		
Particle size range	:	0.3 ÷ 1.18	mm	
Effective size	:	0.40 min	mm	
Uniformity Coefficient	:	1.6	max	
Ionic form at the delivery	:	Cl <sup>-</sup>		
Volume change	:	+ 20 max	% Cl <sup>-</sup> --> OH <sup>-</sup> form	
Total exchange capacity	:	1.0 min	eq/l	
Water retention	:	57 ÷ 67	%	
pH stability range	:	0 ÷ 14		
Operating pH range	:	0 ÷ 12		
Operating temperature	:	60 °C max	(OH <sup>-</sup> )	80 °C max (Cl <sup>-</sup> )
Shipping weight	:	655	g/l approx.	
Standard packaging	:	25 ÷ 50	liter bags	

### RECOMMENDED OPERATING CONDITIONS

Minimum bed depth	:	800	mm		
Linear operating flowrate	:	5 ÷ 50	m/h		
Backwash expansion	:	50 ÷ 80	%		
Regenerants	:	NaCl	NaCl + NaOH	NaHCO <sub>3</sub>	
Regenerant level range	:	100 ÷ 200	100 ÷ 200 + 10 ÷ 20	150 ÷ 300	g/l
Concentration range	:	10	10 + 1 ÷ 2	4 ÷ 6	%
Slow rinse volume	:	1.5 ÷ 2	1.5 ÷ 2	1.5 ÷ 2	BV
Fast rinse volume	:	4 ÷ 10	4 ÷ 10	4 ÷ 6	BV

**Resindion** S.r.l.

A Subsidiary of  MITSUBISHI CHEMICAL



# OPERATING CAPACITY

Operating capacity depends on various parameters, such as inlet composition, endpoint, kinetic load and regenerant level.

In case of need, please contact our TECHNICAL DEPARTMENT.

Fig. 1 BED EXPANSION IN WATER

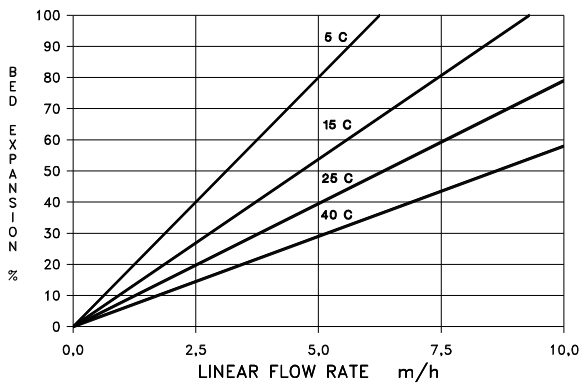
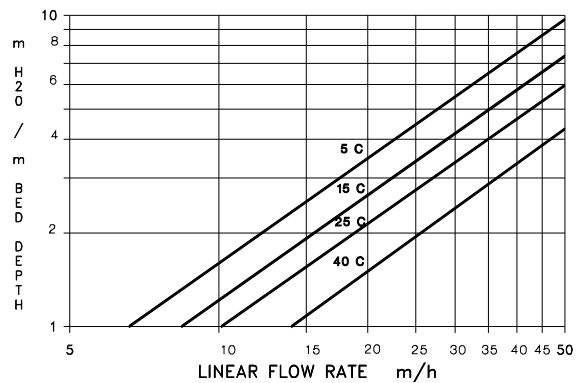


Fig. 2 PRESSURE DROP IN WATER



<b>RECOMMENDED NaOH QUALITY FOR REGENERATION (*)</b>			
Silica	10 ppm	Sodium carbonate	0.5 %
Iron	10 ppm	Sodium chloride 0.5 %	
Mercury	2 ppm	Sodium sulphate	0.2 %
Heavy metals	5 ppm	Hardness	0 ppm
Chlorates	10 ppm as O <sub>2</sub>	Suspended solids	0 ppm
(*) Values referred to NaOH 100%.			

<b>RECOMMENDED NaCl QUALITY FOR REGENERATION</b>	
Purity	97 % min
Moisture	2 % max
Suspended solids	0 %
Ca <sup>++</sup> + Mg <sup>++</sup>	0.5 % max
Sulphates	1 % max
Soluble iron	0 %
Alkalinity	0.001 max ppm CaCO <sub>3</sub>