



# DIAION

TDS03047

DIAION SK110 - Strongly Acidic Resin

TDS 03047

## DIAION SK110

DIAION SK110 is a gel type strongly acidic cation exchange resin characterized by a very high DVB content.

This resin shows a very good resistance to oxidation and excellent resistance to osmotic shocks, important factors when treating solutions of high concentration and viscosity. Its composition complies with the existing food processing rules and regulations.

DIAION SK110 can be supplied under request in calibrated screen grades to meet all the standardized application systems (co-current, counter-current, fluidized beds, layered beds, continuous processes, etc.).

Suggested applications of this product are hot processes softening and demineralization.

### TYPICAL CHARACTERISTICS

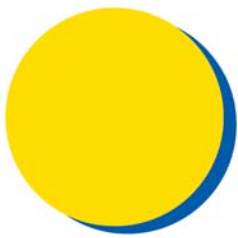
Matrix	:	Gel copolymer styrene-DVB		
Functional group	:	Sulphonic		
Colour and physical form	:	Brown translucent beads		
Particle size range	:	0.3 ÷ 1.18	mm	
Effective size	:	0.4 ÷ 0.6	mm	
Uniformity Coefficient	:	1.6	max	
Ionic form at the delivery	:	Na <sup>+</sup>		
Volume change	:	+ 9 max	% Na <sup>+</sup> --> H <sup>+</sup>	form
Total exchange capacity	:	2.0 min	eq/l	
Water retention	:	35 ÷ 45	%	
pH stability range	:	0 ÷ 14		
Operating pH range	:	1 ÷ 14		
Operating temperature	:	120 max	°C	
Shipping weight	:	845	g/l approx.	
Standard packaging	:	25 or 1000	liter bags	

### RECOMMENDED OPERATING CONDITIONS

Minimum bed depth	:	800	mm		
Linear operating flowrate	:	5 ÷ 50	m/h		
Backwash expansion	:	50 ÷ 80	%		
Regenerants	:	HCl	H <sub>2</sub> SO <sub>4</sub>	NaCl	
Regenerant level range	:	40 ÷ 150	60 ÷ 200	80 ÷ 240	g/l
Concentration range	:	5 ÷ 10	1.5 ÷ 6	5 ÷ 15	%
Slow rinse volume	:	1.5 ÷ 2	BV		
Fast rinse volume	:	3 ÷ 5	BV		

**Resindion** S.r.l.

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# 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

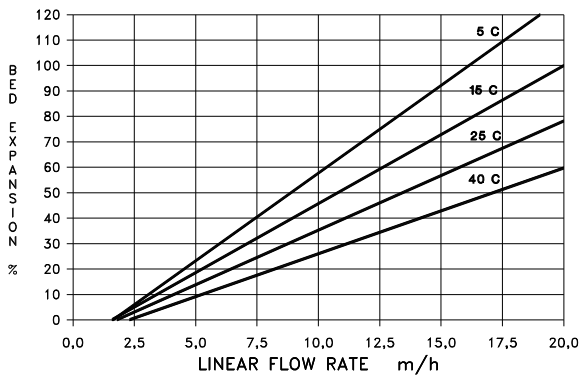
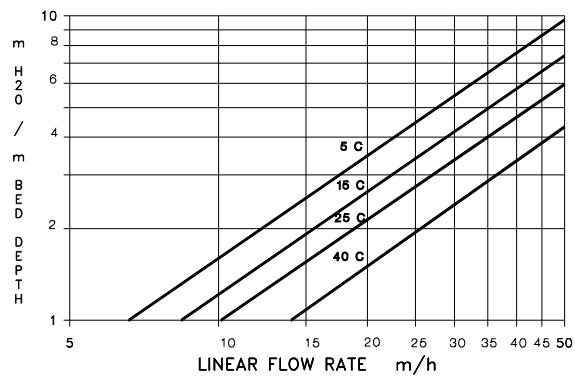


Fig. 2 PRESSURE DROP IN WATER



<b>RECOMMENDED HCl QUALITY FOR REGENERATION (*)</b>	<b>RECOMMENDED H<sub>2</sub>SO<sub>4</sub> QUALITY FOR REGENERATION (*)</b>	<b>RECOMMENDED NaCl QUALITY FOR REGENERATION</b>
Suspended solids      0 ppm	Purity                      95 %	Purity                      97 % min
Chlorine                    10 ppm	Suspended solids      0 ppm	Moisture                 2 % max
Iron                          20 ppm	Iron                         50 ppm	Suspended solids      0 %
Heavy metals            10 ppm	Arsenic                    5 ppm	Ca <sup>++</sup> + Mg <sup>++</sup> 0.5 % max
Sulphates                 5000 ppm	Lead                        5 ppm	Sulphates                1 % max
		Soluble iron             0 %
		Alkalinity                0.001 max
		ppm CaCO <sub>3</sub>
(*) Values referred to HCl 100%.	(*) Values referred to H <sub>2</sub> SO <sub>4</sub> 100%.	

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