

water

RESINDION RESINS FOR WATER TREATMENTS

TDS 14071

DIAION SK1B - Strongly Acidic Resin

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DIAION SK1B

DIAION SK1B is a gel type strongly acidic cation exchange resin.

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.

DIAION SK1B 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.).

The typical applications of DIAION SK1B are organic solutions and amino acids purification.

Its composition complies with the existing food processing rules and regulations.

TYPICAL CHARACTERISTICS

Matrix	:	Gel copolymer styrene-DVB
Functional group	:	Sulphonic
Colour and physical form	:	Light brown translucent beads
Particle size range	:	0.3 ÷ 1.18 m m
Effective size	:	0.40 m m
Uniformity Coefficient	:	1.6 max
Ionic form at the delivery	:	Na ⁺
Volume change	:	+ 9 max % Na ⁺ → H ⁺ form
Neutral salt splitting capacity	:	2.0 min eq/l
Water retention	:	43 ÷ 50 %
Chemical stability	:	stable in the whole pH range
Thermal stability	:	120 max °C
Shipping weight	:	830 g/l approx.
Standard packaging	:	25 or 1000 liter bags

RECOMMENDED OPERATING CONDITIONS

Operating pH range	:	1 ÷ 14
Operating temperature range	:	5 ÷ 120 °C
Minimum bed depth	:	800 m m
Linear operating flowrate	:	5 ÷ 50 m/h
Backwash expansion	:	50 ÷ 80 %
Regenerants	:	HCl H ₂ SO ₄ 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 1.5 ÷ 2 1.5 ÷ 2 BV
Fast rinse volume	:	3 ÷ 5 3 ÷ 5 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

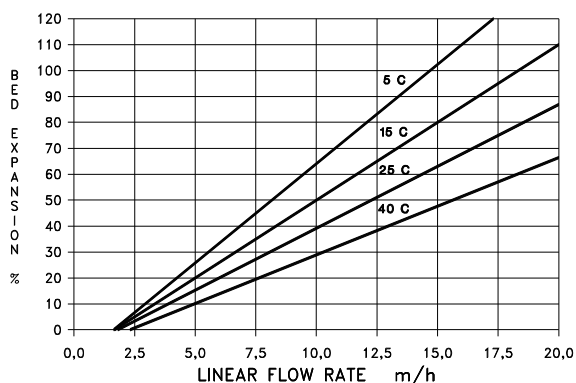
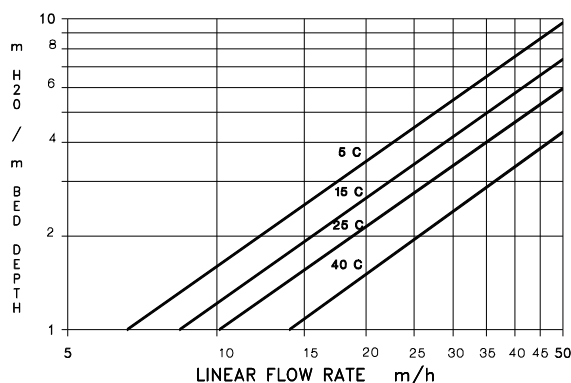


Fig. 2 PRESSURE DROP IN WATER



RECOMMENDED HCl QUALITY FOR REGENERATION (*)	
Suspended solids	0 ppm
Chlorine	10 ppm
Iron	20 ppm
Heavy metals	10 ppm
Sulphates	5000 ppm
(*) Values referred to HCl 100%.	

RECOMMENDED H₂SO₄ QUALITY FOR REGENERATION (*)	
Purity	95 %
Suspended solids	0 ppm
Iron	50 ppm
Arsenic	5 ppm
Lead	5 ppm
(*) Values referred to H ₂ SO ₄ 100%.	

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