

# food

## RESINDION RESINS FOR FOOD TREATMENTS

TDS 11036

### Product Information

RELITE RPS - Strongly Acidic Resin

TDS 11036

## RELITE RPS

RELITE RPS is a highly porous type strongly acidic cation exchange resin.

RELITE RPS has a controlled porosity specifically developed for use in high concentrated sugar solutions and oxidising solutions. This homogeneous structure results in a key factor for the ion exchange kinetics and useful capacity of RELITE RPS, in particular treating solutions which contain inorganic salts and high level nitrogenous compounds such as amino-acids, peptides, proteins and others.

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

### TYPICAL CHARACTERISTICS

Matrix	:	Highly porous copolymer styrene-DVB
Functional group	:	Sulphonic
Colour and physical form	:	Light brown opaque beads
Particle size range	:	0.425 ÷ 1.18 m m
Effective size	:	0.45 min m m
Uniformity Coefficient	:	1.6 max
Ionic form at the delivery	:	Na <sup>+</sup>
Volume change	:	+ 10 % max Na <sup>+</sup> --> H <sup>+</sup> form
Total exchange capacity	:	1.8 min eq/l
Water retention	:	48 ÷ 56 %
Chemical stability	:	stable in the whole pH range
Thermal stability	:	120 °C max
Shipping density	:	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	m m	800
Linear operating flowrate	m/h	2 ÷ 50
Backwash expansion	%	50 ÷ 80
Regenerants	:	HCl                      H <sub>2</sub> SO <sub>4</sub> NaCl                      HNO <sub>3</sub>
Regenerant level range	g/l	40 ÷ 150                      60 ÷ 200                      80 ÷ 240                      40 ÷ 150
Concentration range	%	5 ÷ 10                      1.5 ÷ 25                      5 ÷ 15                      6 ÷ 10
Slow rinse volume	BV	1.5 ÷ 2                      1.5 ÷ 2                      1.5 ÷ 2                      1.5 ÷ 2
Fast rinse volume	BV	3 ÷ 5                      3 ÷ 5                      3 ÷ 5                      3 ÷ 5

**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

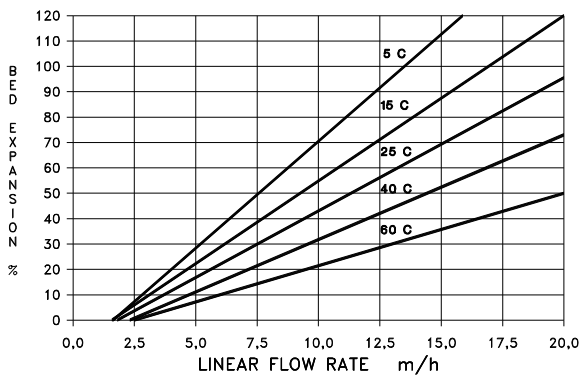
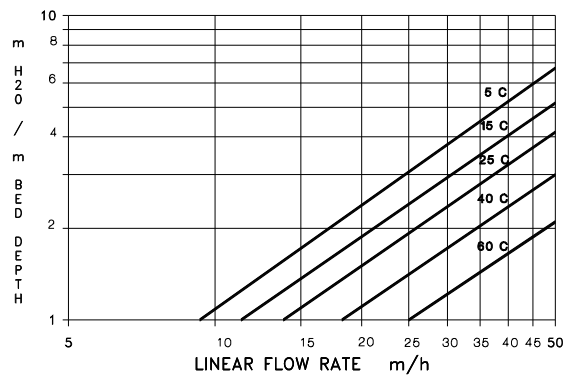


Fig. 2 PRESSURE DROP IN WATER



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

<b>RECOMMENDED H<sub>2</sub>SO<sub>4</sub> QUALITY FOR REGENERATION (*)</b>		
Purity	95	%
Suspended solids	0	ppm
Iron	50	ppm
Arsenic	5	ppm
Lead	5	ppm
(*) Values referred to H <sub>2</sub> SO <sub>4</sub> 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>