

# food

## RESINDION RESINS FOR FOOD TREATMENTS

TDS03113

### Product Information

RELITE D182 - Strongly Basic Resin

TDS 03113

## RELITE D182

RELITE D182 is a TYPE I highly porous styrene-DVB anion exchange resin containing strongly basic ion groups; its porous structure affords good osmotic, thermal and mechanical stability.

Its typical structure makes it suitable for decolorization and deashing processes on sugar solutions in single or mixed bed plant technologies. The substances adsorbed can easily be desorbed by regeneration with diluted bases or neutral or alkaline sodium chloride solutions.

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

### TYPICAL CHARACTERISTICS

Matrix	:	Highly porous copolymer styrene-DVB
Functional group	:	Trimethylamine
Colour and physical form	:	Light yellowish/white opaque beads
Particle size range	:	0.425 ÷ 1.0 mm
Effective size	:	0.40 min mm
Uniformity Coefficient	:	1.6 max
Ionic form at the delivery	:	Cl <sup>-</sup>
Volume change	:	+ 24 % max Cl <sup>-</sup> → OH <sup>-</sup> form
Total exchange capacity	:	1.0 min eq/l
Water retention	:	57 ÷ 67 %
Chemical stability	:	stable in the whole pH range
Thermal stability	:	100 °C max (Cl <sup>-</sup> )
Shipping density	:	650 g/l approx.
Standard packaging	:	25 ÷ 50 liter bags

### RECOMMENDED OPERATING CONDITIONS

Operating pH range	:	3 ÷ 9
Operating temperature range	:	5 ÷ 80°C
Minimum bed depth	m m	1000
Linear operating flowrate	m/h	10 max
Backwash expansion	%	50 ÷ 80
Regenerants	:	NaCl + NaOH Na <sub>2</sub> CO <sub>3</sub> NaOH
Regenerant level range	g/l	100 ÷ 200 100 ÷ 200 + 10 ÷ 20 100 ÷ 200 80 ÷ 120
Concentration range	%	10 10 + 1 ÷ 2 4 ÷ 6 4 ÷ 6
Slow rinse volume	BV	1.5 ÷ 2 1.5 ÷ 2 1.5 ÷ 2 1.5 ÷ 2
Fast rinse volume	BV	4 ÷ 10 4 ÷ 10 4 ÷ 6 5 ÷ 8

**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

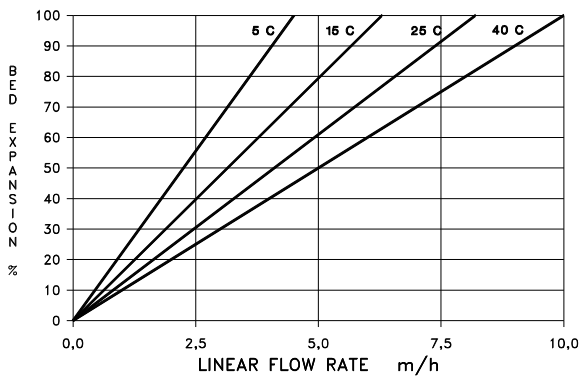
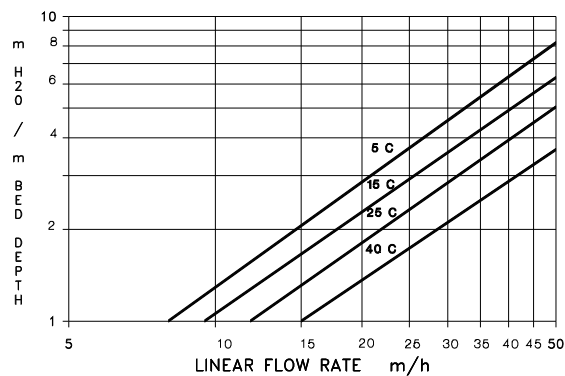


Fig. 2 PRESSURE DROP IN WATER



<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>