

# food

## RESINDION RESINS FOR FOOD TREATMENTS

TDS120211

### Product Information

DIAION PA412 - Strongly Basic Resin

TDS 120211

## DIAION PA412

DIAION PA412 is a "TYPE II" porous type strongly basic anion exchange resin, characterized by a standard DVB content.

Its main characteristics are a controlled basicity, a very good exchange kinetics and regeneration efficiency.

The main applications of DIAION PA412 are the demineralization of starch hydrolysates, the separation and purification of amino acids and other special purposes.

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

### TYPICAL CHARACTERISTICS

Matrix	:	Porous copolymer styrene-DVB
Functional group	:	Dimethylethanolamine
Colour and physical form	:	Light yellowish/white opaque beads
Particle size range	:	0.3 ÷ 1.18 mm
Effective size	:	0.40 mm min
Uniformity Coefficient	:	1.6 max
Ionic form at the delivery	:	Cl <sup>-</sup>
Volume change	:	+13% max (Cl <sup>-</sup> → OH <sup>-</sup> form)
Neutral salt splitting capacity	:	1.1 eq/l min
Water retention	:	46 ÷ 52 %
Chemical stability	:	stable in the whole pH range
Thermal stability	:	40 °C (OH <sup>-</sup> form) 60 °C max (Cl <sup>-</sup> form)
Shipping density	:	685 g/l approx.
Standard packaging	:	25 or 1000 liter bags

### RECOMMENDED OPERATING CONDITIONS

Operating pH range	:	0 ÷ 14
Operating temperature range	:	5 ÷ 40°C
Minimum bed depth	m m	: 800
Linear operating flowrate	m/h	: 5 ÷ 50
Backwash expansion	%	: 50 ÷ 80
Regenerant	:	NaOH
Regenerant level range	g/l	: 50 ÷ 150
Concentration range	%	: 3 ÷ 6
Slow rinse volume	BV	: 1.5 ÷ 2
Fast rinse volume	BV	: 5 ÷ 10

**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

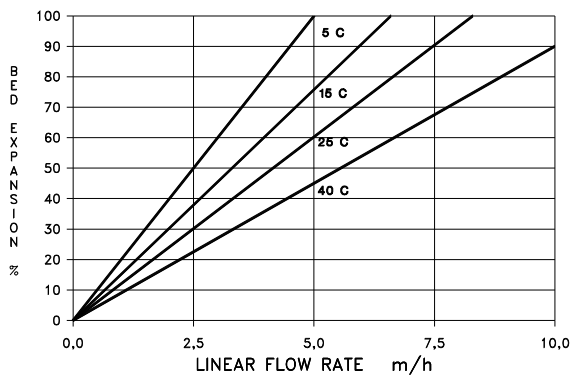
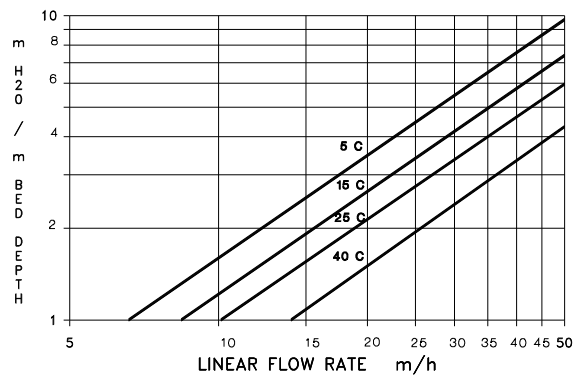


Fig. 2 PRESSURE DROP IN WATER



### RECOMMENDED NaOH QUALITY FOR REGENERATION (\*)

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%.