

# water

## RESINDION RESINS FOR WATER TREATMENTS

TDS10024

### Product Information

RELITE CFA - Strongly Acidic Resin

TDS 10024

## RELITE CFA

RELITE CFA is a gel type strongly acidic cation exchange resin with a characteristic DVB content optimized for softening applications.

This resin shows high operating capacity, good exchange kinetics and mechanical stability and is supplied in a calibrated screen grade to permit the direct use in classical counter-current regeneration systems.

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

The most important applications of RELITE CFA are potable waters household softening and process waters industrial softening.

### TYPICAL CHARACTERISTICS

Matrix	:	Gel copolymer styrene-DVB	
Functional group	:	Sulphonic	
Colour and physical form	:	Yellowish brown transparent beads	
Particle size range	:	0.425 ÷ 1.18	m m
Effective size	:	0.5 min	m m
Uniformity Coefficient	:	1.5	max
Ionic form at the delivery	:	Na <sup>+</sup>	
Volume change	:	- 10 max	% Na <sup>+</sup> → Ca <sup>++</sup> form
Total exchange capacity	:	1.9 min	eq/l
Water retention	:	45 ÷ 52	%
Chemical stability	:	stable in the whole pH range	
Thermal stability	:	120 max	°C
Shipping density	:	830	g/l approx.
Standard packaging	:	25 o 1000	liter bags

### RECOMMENDED OPERATING CONDITIONS

Operating pH range	:	1 ÷ 14	
Operating temperature range	:	5 ÷ 100	°C
Minimum bed depth	:	800	m m (industrial softening)
	:	500	m m (household softening)
Linear operating flowrate	:	5 ÷ 50 (*)	m/h
Backwash expansion	:	50 ÷ 80	%
Regenerant	:	NaCl	
Regenerant level range	:	80 ÷ 240	g/l
Concentration range	:	5 ÷ 15	%
Slow rinse volume	:	1.5 ÷ 2	BV
Fast rinse volume	:	3 ÷ 5	BV

(\*) Except for particular household applications, where higher flowrates can be achieved.

**Resindion** S.r.l.  
A Subsidiary of  MITSUBISHI CHEMICAL

## OPERATING CAPACITY

The operating capacity depends on various parameters, such as inlet composition, endpoint, kinetic load and regenerant level.

The operating capacities obtainable with RELITE CFA at different regeneration levels are indicatively listed in the following Table:

<b>Operating Capacity g CaCO<sub>3</sub> / l resin</b>	<b>40</b>	<b>58</b>	<b>70</b>
<b>Regenerant Level g NaCl / l resin</b>	<b>80</b>	<b>160</b>	<b>240</b>

Fig. 1 BED EXPANSION IN WATER

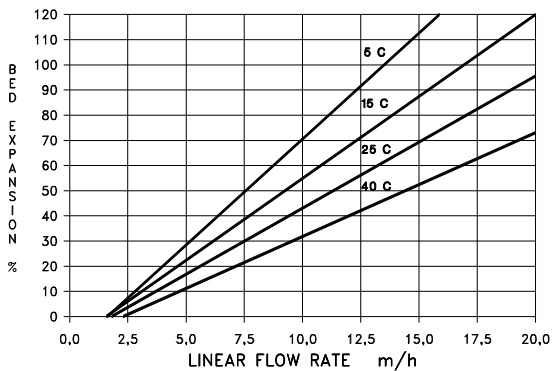
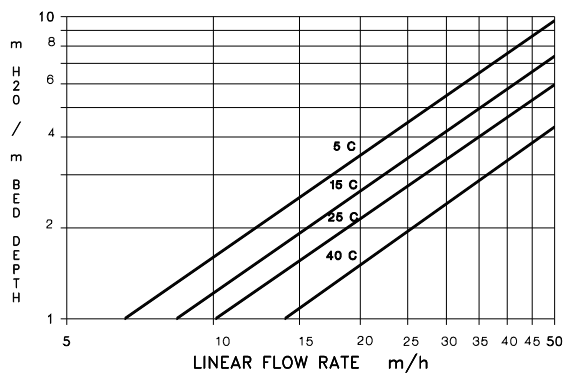


Fig. 2 PRESSURE DROP IN WATER



### RECOMMENDED NaCl QUALITY FOR REGENERATION

Purity	97 % min
Moisture	2 % max
Suspended solids	0 %
Ca <sup>++</sup> + Mg <sup>++</sup>	0.5 % max
Soluble iron	0 %
Alkalinity	0.001 max ppm CaCO <sub>3</sub>