TDS030111

Product Information

RELITE CFS - Strongly Acidic Resin

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RELITE CFS

RELITE CFS is a porous type strongly acidic cation exchange resin.

The porous structure of this resin allows very high exchange kinetics and excellent osmotic shock resistance.

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

RELITE CFS 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 main applications of this product are water demineralization and softening, hot process softening and metal plating rinse bath recycling.

TYPICAL CHARACTERISTICS

Matrix	:	Porous copolymer styrene-DVB	
Functional group	:	Sulphonic	
Colour and physical form	:	Light brown opaque beads	
Particle size range	:	0.3 ÷ 1.18	m m
Effective size	:	0.40 min	m m
Uniformity Coefficient	:	1.6	max
Ionic form at the delivery	:	Na^+	
Volume change	:	+ 8 max	% Na^+ --> H^+ form
Total exchange capacity	:	2.0 min	eq/l
Water retention	:	46 ÷ 52	%
Chemical stability	:	stable in the whole pH range	
Thermal stability	:	140 max	°C
Shipping density	:	840	g/l approx.
Standard packaging	:	25 o 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_2SO_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	BV		
Fast rinse volume	:	3 ÷ 5	BV		

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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

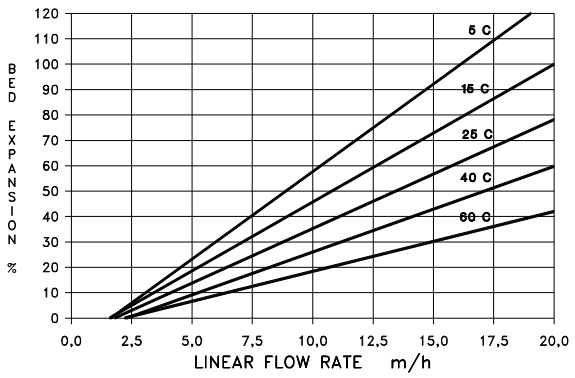
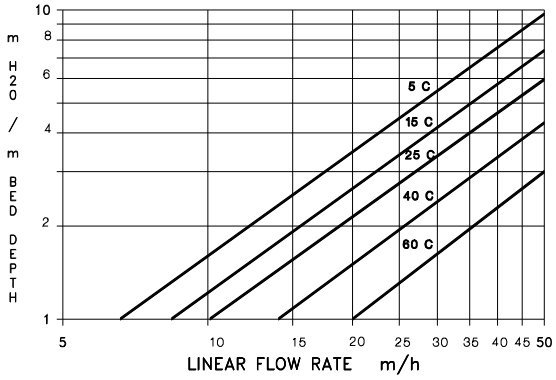


Fig. 2 PRESSURE DROP IN WATER



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_2SO_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 $CaCO_3$