TDS 12013

RELITE MAC 10

RELITE MAC 10 is a specially treated highly porous styrenic weakly basic anion exchange resin with high selectivity in front of arsenic present in aqueous solutions as arsenate and arsenite; the special treatment consists in the inclusion of iron oxide into the resin pores, conferring oxidation properties to the resin.

RELITE MAC 10 main characteristics are high operating capacity, good exchange kinetics and great resistance to physical, thermal and osmotic shocks.

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

RELITE MAC 10 is supplied in a calibrated screen grade to favour a better water percolation through the resin bed and, consequently, to grant a better arsenic adsorption.

The main application of this product is the removal of arsenic from ground and/or drinking water.

TYPICAL CHARACTERISTICS

Matrix	:	Highly porous copolymer styrene-DVB	
Functional group	:	Iron oxide	
Colour and physical form	:	Brown opaque beads	
Particle size range	:	0.3 ÷ 0.4	m m
Uniformity Coefficient	:	1.1	max
Total capacity (Arsenic)	:	0.5 eq/l	min
Water retention	:	52 ÷ 57	%
Chemical stability	:	Stable in the pH range 4 - 14	
Thermal stability	:	40 °C max	
Shipping density	:	750	g/l approx.
Standard packaging	:	25 or 1000	liter bags

RECOMMENDED OPERATING CONDITIONS

Operating pH range	:	4 ÷ 11	
Operating temperature	:	40°C	max
Minimum bed depth	:	1000	m m
Linear operating flowrate	:	5 ÷ 40	m/h
Backwash expansion	:	50 ÷ 80	%
Regenerant	:	NaOH + NaCl	
Regenerant level range	:	60 ÷ 90	g/l
Concentration range	:	2 ÷ 6	%
Slow rinse volume	:	6 ÷ 8	BV
Fast rinse volume	:	10 ÷ 30	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

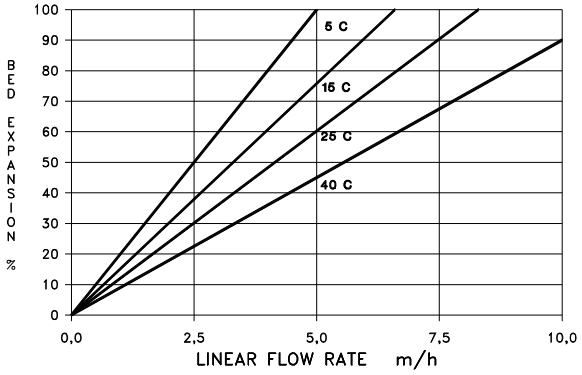
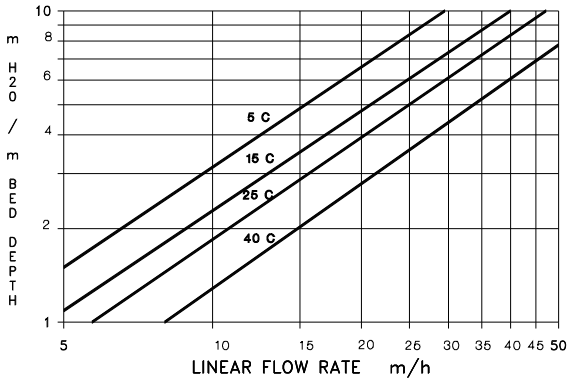


Fig. 2 PRESSURE DROP IN WATER



RECOMMENDED 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_2	Suspended solids	0 ppm

(*) Values referred to NaOH 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 $CaCO_3$