

Resinex™ TPX-4500

The organic scavenger

Resinex™ TPX-4500 belongs to the category of “organic scavenger”, specially developed to bind reversibly soluble organic matter present in water (humic and fulvic acids) or in other solutions. Their role in the treatment line is thus to protect other ion exchangers located downstream of an organic pollution which would reduce their capacity and increase their rinsing time. Resinex™ TPX-4500 is a macroporous structured polyacrylic-divinylbenzene-copolymer with strong base type I groups.

Operation

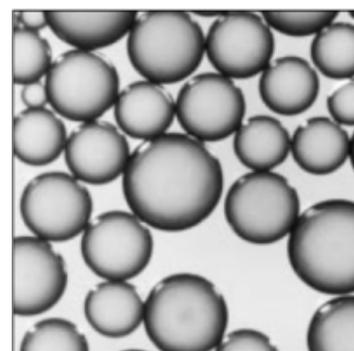
The “organic scavenger” resins operate in a chloride cycle. Resinex™ TPX-4500 is supplied in a chloride form, and can be used for this application immediately without any prior double regeneration.

OPERATION CONDITIONS

Bed depth	>750 mm
Service flow rate	8 – 40 BV/h
Backwash expansion	50 – 75%

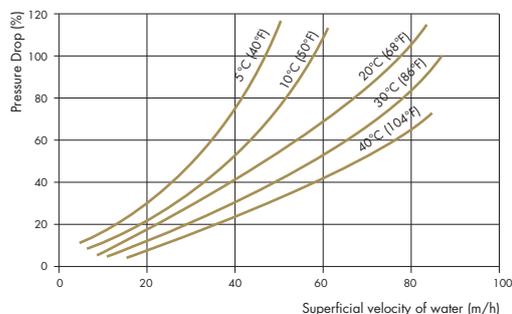
Regeneration Conditions (Parameters On The Backside)

Regeneration is done thanks to a brine alkaline solution of 10% NaCl + 2% NaOH. The addition of sodium hydroxide in brine increases the swelling of the structure of the exchanger, thus promoting desorption of the organic molecules attached. The effectiveness of the elution of the organic matter during the regeneration phase can be improved by operating with an alkaline brine at a temperature of 40°C. The working capacity of an organic scavenger is up to 40 g/l (as KMnO_4). It is recommended not to go up to the complete saturation of the resin and to stop the exhaust cycle before reaching the maximum total capacity.



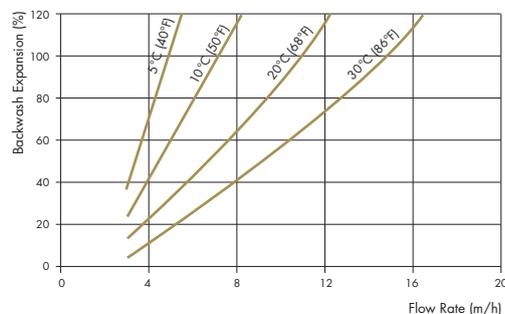
Resinex™ Pressure Drop

PRESSURE DROP



Resinex™ Backwash Expansion

BACKWASH EXPANSION



STANDARD REGENERATION

CO-FLOW

PARAMETERS

Concentration	10% NaCl + 2% NaOH
Level (NaCl/NaOH)	250/30 g/l
Flow rate regenerant	4 – 6 BV/h
Contact time regenerant	30 – 60 min.
Flow rate slow rinse	4 – 6 BV/h
Slow rinse water required	2 – 4 BV
Fast rate fast rinse	10 – 30 BV/h
Fast rinse water required	10 – 30 BV/h

FOR EASY CONVERSION TO IMPERIAL UNITS, PLEASE VISIT WWW.RESINEX-IXR.NET

For more information or to contact Jacobi visit: www.resinex-ixr.net



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RXTB-TPX-4500-eng#rev10-20120402

Jacobi Corporate Headquarters
 Slöjdaregatan 1
 SE-39353 Kalmar | Sweden
 Tel: +46 480 417550 | Fax: +46 480 417559
 info@jacobi.net | www.jacobi.net

