

INDION® NSSR

INTRODUCTION

High conc. of nitrate in water is a potential hazard for two reasons. The nitrate ions form complexes with the blood composition thereby in long run cause oxygen starvation for human life. The flow of nitrate bearing water through iron pipes can cause depletion of oxygen by corrosion.

In view of these difficulties use of an Ion Exchange resin is the preferred process for nitrate removal. INDION NSSR is a macroporous strongly basic anion resin which is tailor made to suit removal of nitrate ions from water for potable uses. The proper mix of physico - chemical properties gives ideal nitrate exchange kinetics to this resin making suitable for nitrate removal in the presence of sulphate ions.

Characteristics :

Appearance	:	Moist Opaque off white to brown coloured beads.
Ionic form as supplied	:	Chloride
Functional Group	:	Quaternary ammonium
% Non-spherical	:	10
Shipping weight *	:	Around 650 - 720 kgs/m ³
Particle size range	:	0.3 to 1.2 mm
> 1.2 mm	:	5.0 % v/v max
< 0.3 mm	:	1.0 % v/v max.
Uniformity co-efficient	:	1.7 max.
Effective size	:	0.4 to 0.5 mm
Moisture holding capacity	:	45 to 50% in Cl ⁻ form
Total exchange capacity	:	0.9 meq/ml, min.
Osmotic Stability	:	Excellent
Thermal Stability	:	100°C max. in chloride form
pH range	:	Stable in pH 0 - 14

Operating parameters

1. Minimum bed depth : 1000 mm.
2. Operating temperature : 100°C max. in Cl form
3. Service flow rate : 8 – 30 BV per hr.
4. Regenerant level : 125 g of NaCl per ltr. Of resin
5. Regeneration conc. : 5 – 10% w/v NaCl
6. Regeneration flow rate : 4.5 BV's/hr.
7. Backwash flow rate : 5 M / hr.8. Rinse water requirement :
8. 1 Slow rinse : 2 BV's8.2 Fast rinse : 6 BV's
9. Rinse water flow rates : 9.1 Slow rinse : 3.5 BV's / hr.9.2 Fast rinse : 20 BV's / hr.

Note : The operating capacity of Indion NSSR is a function of ratio of Nitrates to (Nitrates + Sulfates) ratio , flow rate and regeneration level.

Storage

Ion exchange resin require proper care at all times. The resin must never be allowed to become dry. Regularly open the plastic bags and check the condition of the resin when in storage. If not moist, add enough clean demineralized water and keep it in completely moist condition. Always keep the resin drum in the shade. Recommended storage temperature is between 20°C and 40°C.

Packing Specifications

Supplied in 180 litres in mild steel drums with plastic liner. Also supplied in 50 litres bags.

Safety Precautions

Acid and alkali solutions used for regeneration are corrosive and should be handled in a manner that will prevent eye and skin contact. If any oxidising agents are used, necessary safety precautions should be observed to avoid accidents and damage to the resin.

INDION



Distributed By:
Roanoke Water Treatment, Inc.
1948 Franklin Road SW
Roanoke, VA 24014
(540) 982-2324