

# INDION® 820

## Description

INDION 820 is a macroporous strongly basic Type II anion exchange resin. It is a high capacity, new generation resin based on crosslinked polystyrene matrix and has quaternary ammonium functional groups.

INDION 820 is produced by a unique manufacturing technique, which gives it the optimum porosity and improved kinetics. It gives higher operating exchange capacity due to greater utilisation of the exchange sites as compared to other conventional macroporous resins. This feature, combined with its high basicity,

permits absorption of large sized soluble organic molecules and their subsequent elution during regeneration. Thus, while INDION 820 ensures complete removal of soluble organics from the water, it exhibits excellent resistance to organic fouling as compared to other conventional resins. INDION 820 has very good stability against physical and chemical attrition. This results in lesser fines generation and therefore higher operating life for the resin.

INDION 820 is generally employed in demineralising applications of raw water containing high organic levels.

## Characteristics

Appearance	:	Off white to brown opaque beads
Matrix	:	Styrene divinyl benzene copolymer
Functional Group	:	Benzyl dimethyl ethanolamine
Ionic form as supplied	:	Chloride
Total exchange capacity	:	1.0 meq/ml, minimum
Moisture holding capacity	:	54 - 61 %
Shipping weight *	:	670 kg/m <sup>3</sup> , approximately
Particle size range	:	0.3 to 1.2 mm
> 1.2 mm	:	5.0%, maximum
< 0.3 mm	:	1.0%, maximum
Uniformity co-efficient	:	1.7, maximum
Effective size	:	0.45 to 0.55 mm
Maximum operating temperature	:	40° C in OH form 75° C in Cl form
Operating pH range	:	0 to 14
Volume change	:	Cl to OH, 10 - 15 % maximum
Resistance to reducing agents	:	Good
Resistance to oxidizing agents	:	Generally good, chlorine should be absent

\* Weight of resin, as supplied, occupying 1 m<sup>3</sup> in a unit after backwashing and draining.

## Packing

HDPE Lined bags	25/ 50 lts	LDPE bags	1 cft / 25 lts
Super sack	1000 lts	Super sack	35 cft
MS drums		Fiber drums	
with liner bags	180 lts	with liner bags	7 cft

## Storage

Ion exchange resins require proper care at all times. The resins 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 demineralised 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.

## Safety

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 range of Ion Exchange resins are produced in a state-of-the-art ISO 9001 and ISO 14001 certified manufacturing facilities at Ankleshwar, in the state of Gujarat in India.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice.

**INDION** is the registered trademark of Ion Exchange (India) Ltd.



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