

# INDION<sup>®</sup> NIP

## Description

INDION NIP is a Type 2 strong base anion exchange resin in bead form having benzyl dimethyl-ethanolammonium groups. These groups are less strongly basic than those in Type 1 resins, resulting in a higher regeneration efficiency with lower operating costs.

INDION NIP is based on cross-linked polystyrene, and has an isoporous structure.

INDION NIP has a high capacity for the natural organic matter present in some surface waters and has excellent resistance to poisoning by this organic matter.

Characteristics	
Appearance	Translucent red brown beads
Matrix	Styrene - EDMA copolymer
Functional Group	Benzyl dimethyl ethanol amine
Ionic form as supplied	Chloride
Total exchange capacity	1.2 meq/ml, minimum
Moisture holding capacity	45 - 53%
Shipping weight*	670 - 720 kg/m <sup>3</sup>
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 0.60 mm
Volume change	Cl to OH, 10-15% approximately
Maximum operating temperature	40° C
Operating pH range	0 to 14
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.	

## Use of good quality regenerants

All ion exchange resins are subject to fouling and blockage of active groups by precipitated iron. Hence the iron content in the feed water should be low and the regenerant sodium hydroxide must be essentially free from iron and heavy metals. All resins, especially the anion exchangers are prone to oxidative attack resulting in problems such as loss of capacity, resin clumping, etc. Therefore sodium hydroxide should have as low a chlorate content as possible. Good quality regenerant of technical or chemically pure grade should be used to obtain best results.

## Packing

HDPE Lined bags	:	25/50 lts
LDPE bags	:	1 cft/25 lts
Super sack	:	1000 lts
Super sack	:	35/40/42 cft
MS/HDPE drums with liner bags	:	180/200 lts
Fiber drums with liner bags	:	7 cft

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.

## Storage

Ion exchange resins 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 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.



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Malaysia | Oman | Portugal | Saudi Arabia | Singapore  
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#### Manufacturing Units

India - Ankleshwar | Hosur | Patancheru | Rabale | Verna | Wada

Overseas - Bangladesh | Indonesia | Saudi Arabia | UAE

All India Service and Dealer Network

[www.ionexchangeglobal.com](http://www.ionexchangeglobal.com) | [www.ionresins.com](http://www.ionresins.com)

