

INDION® PA 500

Industrial Grade Polymeric Adsorbent

Description

INDION PA 500 is a polymeric adsorbent supplied as insoluble off white translucent beads. It is a non-ionic, hydrophobic crosslinked polymer. It is a macroporous polymer having high surface area and aromatic nature at its surface. This surface gives INDION PA 500 excellent physical, chemical and thermal stability.

INDION PA 500 can be regenerated and used through repeated cycles in column or batch operations. Its pore size distribution makes it an excellent choice for the removal of a wide variety of large organic molecules from polar solvents.

Pretreatment

INDION PA 500 polymeric adsorbent is shipped as a water wet product imbibed with sodium chloride and sodium carbonate salts to retard bacterial growth. These salts must be washed from the adsorbent prior to use and it is suggested that this be achieved by washing with water at a linear flowrate of 5-10 m/h

until the required level is achieved. In some sensitive applications, residual monomeric or oligomeric compounds may be required to be removed from the adsorbent. A regeneration with the proposed regenerant is also recommended prior to beginning the first service cycle. If the regenerant is an alcohol, it must be displaced with water prior to beginning the first loading cycle.

Applications

- Recovery and purification of antibiotics, water soluble steroids, enzymes and proteins.
- Recovery of plant extracts and fermentation products
- Enzyme immobilization.
- Separation of non-polar organic solutes from polarsolvents.
- Recovery and recycle of phenolic and aromatic compounds.
- Removal of chlorinated solvents, herbicides and pesticides from aqueous streams.

Characteristics	
Appearance	White to off white Translucent beads
Matrix	Styrene divinylbenzene copolymer
Moisture holding capacity	63 - 67%
Shipping weight*	640 - 680 kg/m ³
Particle size range	0.3 to 1.2 mm
> 1.2 mm	5.0%, maximum
< 0.3 mm	5.0%, maximum
Uniformity co-efficient	1.8, maximum
Effective size	0.40 to 0.50 mm
Surface area	500 m ² /g approximately

Porosity	1.45 ml/g approximately
Maximum operating temperature	130° 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 1m ³ in a unit after backwashing and draining.	

Regenerants/eluting agents

- Methanol or other water miscible organic solvents (acetone, isopropanol etc.)
- Dilute bases (4-5% NaOH) for weakly acidic compounds.
- Dilute acids (4-5% HCl) for weakly basic compounds.
- Water where adsorption is from an ionic solution.
- Steam for volatile materials.

Packing

HDPE Lined bags	:	25/50 lts
LDPE bags	:	1 cft/25 lts
HDPE carboy with liner bags	:	25/50 lts
HDPE drums with liner bags	:	180 lts

Storage

Ion exchange resins require a proper care at all times. The resins must never be allowed to become dry. The plastic bags must be opened regularly and the condition of the resin checked, when in storage. If dry add enough clean water to keep it in complete moist condition. The resin drum must always be kept in 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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Manufacturing Units

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All India Service and Dealer Network

www.ionexchangeglobal.com | www.ionresins.com

