

# INDION® 860

## Description

INDION 860 is a macroporous weakly basic anion resin having a tertiary amine functionality attached to a polymeric styrene divinyl benzene matrix. INDION 860 is supplied in free base form ready for immediate use. The combination of macroporous structure and tertiary amine functionality results in fast reaction rates, high regeneration efficiency, low rinse requirements and excellent chemical and physical stability.

INDION 860 can be effectively regenerated with sodium hydroxide, ammonium hydroxide and sodium carbonate. It is regenerated with 110 to 120% of the quantity of alkali chemically equivalent to the operating

capacity as compared to 200 - 300% required for strongly basic anion exchange resins. INDION 860 can be used to treat water/process streams to remove free mineral acidity. INDION 860 is used in either separate or layered bed configuration.

Areas of application include conventional demineralisation of process liquors at ambient temperature, deacidification of formaldehyde, de-ashing of starch based sweeteners.

INDION 860 can also be used for the recovery of chromate from plating rinse water and cooling tower blow down. INDION 860 is also used as a catalyst in aldolization reactions.

## Characteristics

Appearance	:	Off white to brown opaque beads
Matrix	:	Styrene divinyl benzene copolymer
Functional Group	:	Tertiary amine
Ionic form as supplied	:	Free base
Total exchange capacity	:	1.4 meq/ml, minimum
Moisture holding capacity (in Cl form)	:	52 - 56 %
Shipping weight *	:	620 - 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%, maximum
Uniformity co-efficient	:	1.7, maximum
Effective size	:	0.40 - 0.55 mm
Maximum operating temperature	:	60° C in free base 80° C in HCl form
Operating pH range	:	0 to 7
Volume change	:	Free base to Hydrochloride, 25 % 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 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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