

# INDION® 662

## Description

INDION 662-FG is a weak acid cation exchange resin containing carboxylic acid groups. It is in the form of white, opaque beads. The resin is supplied in the hydrogen (H<sup>+</sup>) form. The resin can be converted to sodium (Na<sup>+</sup>) form by treatment with the solution of sodium hydroxide.

## Applications

The (H<sup>+</sup>) form resin can be used for the applications such as neutralization of strong bases, removal of temporary hardness from tap water, removal of metallic ion impurities etc.

### Characteristics

Appearance	:	White opaque beads
Matrix	:	Methacrylic acid divinyl benzene
Functional Group	:	Carboxylic acid
Ionic form as supplied	:	Hydrogen
Total exchange capacity	:	3.8 meq/ml, minimum
Moisture holding capacity	:	44 - 50 %
Shipping Weight *	:	690 kg/m <sup>3</sup> , approximately
article size range	:	0.3 to 1.2 mm
> 1.2 mm	:	5.0%, maximum
< 0.3 mm	:	3.0%, maximum
Uniformity co-efficient	:	1.7, maximum
Effective size	:	0.40 to 0.50 mm
Maximum operating temperature	:	100° C in H <sup>+</sup> form
Operating pH range	:	6 to 14
Volume change	:	H to Na, 70 % maximum
Leachable TOC by DIN test method	:	3 ppm, 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.

## Recommended operating conditions

Indion 662 may be operated at different flow rates depending upon its application i.e. in chemical processing or industrial water treatment. The mode of operation in chemical processing is optimised for high adsorption and lower leakage of vitamins, antibiotics etc. from fermented broth. This is achieved by passing the feed solution upflow through a bed of INDION 662 at a flow rate that expands the resin bed approximately to 25%. The upflow (fluidised) operation is required to permit the particulate matter to pass through the column without clogging the resin bed.

INDION 662 can be regenerated using minerals such as HCl or H<sub>2</sub>SO<sub>4</sub> acids at 100 - 120% of theory while the conditioning cycle can be used to obtain the desired form of resins for stabilised exchange kinetics.

INDION 662 can also be recommended to remove temporary hardness (bicarbonate hardness) to produce mildly acidic pleasant tasting water.

## 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 the storage. If not moist, add enough clean demineralised water and keep it in completely moist condition.

## 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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