

# INDION® GS 300 NG

## Description

INDION GS 300 NG is a nuclear grade strongly basic Type 1 anion exchange resin. It is a gel type ion exchanger having crosslinked polystyrene matrix and a quaternary ammonium functionality.

INDION GS 300 NG has a high mechanical strength and it is developed specially for nuclear applications. The resin is supplied in highly regenerated form.

### Characteristics

Appearance	:	Translucent light yellow to brown beads
Matrix	:	Crosslinked polystyrene divinyl benzene
Functional Group	:	Quaternary ammonium
Ionic form as supplied	:	Hydroxide
Bead strength	:	250 g/bead, average
Microscopic examination	:	Surface cracks not more than 5 %
Total exchange capacity	:	1.1 meq/ml, minimum
Ionic conversion	:	94 %, minimum in OH form 1.0 %, maximum in Cl form 5 %, maximum in CO <sub>3</sub> form
Moisture holding capacity (in Cl form)	:	46 -52 % , maximum
Shipping weight *	:	660 kg/m <sup>3</sup> , approximately
Particle size range	:	0.3 to 1.2 mm
> 1.2 mm	:	5.0 %, maximum
< 0.3 mm	:	0.5 %, maximum
Uniformity co-efficient	:	1.7, maximum
Effective size	:	0.45 to 0.50 mm
Stability	:	Stable upto 60° C Stable in pH range 0 -14 Resistant to oxidizing and reducing agents Stable in Radiation field upto 10 <sup>7</sup> rad

### Impurities

Iron	:	20 mg/l, maximum
Copper	:	10 mg/l, maximum
Heavy metals as Pb	:	10 mg/l, maximum
Water soluble organics	:	0.1 mg KMnO <sub>4</sub> /ml, maximum

Note : The values for specifications given above are for Hydroxide (OH) form of the resin unless mentioned otherwise.

\* 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
HDPE drums	50/100/180 lts		

## Storage

Ion exchange resins require proper care at all times. The resins must never be allowed to become dry. Since INDION GS 300 NG is supplied in highly regenerated

condition any exposure to atmospheric air must be avoided as this will convert it to the carbonate form. The drums should therefore be always kept in shade in tightly closed condition.

## 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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