

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 gm/beads, 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 ₃ form
Moisture holding capacity (in Cl form)	48 -58%, maximum
Shipping weight*	650 - 710 kg/m ³
Particle size range	0.3 to 1.2mm
> 1.2 mm	5.0%, maximum
< 0.3 mm	0.5, maximum
Uniformity co-efficient	1.7, maximum
Effective size	0.45 to 0.60 mm
Stability	Stable up to 60° C
	Stable in pH range 0 - 14
	Resistant to oxidizing and reducing agents
	Stable in Radiation field up to 10 ⁷ 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 ₄ /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 ³ in a unit after backwashing and draining.	

Packing

HDPE Lined bags (Double Bag Packing)	: 25/50 lts
LDPE Valve Type bags / Nylon Vacuum 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 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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