

INDION® ARU 104

Uranium Specific Resin

Description

INDION ARU104 is a gel strong base type I anion exchange resin, specially optimised for recovery of uranium by continuous ion exchange. It's equilibrium capacity, kinetics of loading and elution and hydraulic properties have been carefully balanced so as to give a minimum total resin inventory and equipment size.

INDION ARU 104 has also been designed for higher uranium equilibrium capacity and lower silical pick up.

INDION ARU 104 is normally supplied in chloride form. It should therefore be converted to the sulphate form before being put on stream.

Characteristics	
Appearance	Translucent pale yellow bead
Matrix	Styrene DVB copolymer, gel
Functional Group	Quaternary ammonium
Ionic form as supplied	Chloride
Total exchange capacity	1.6 meq/ml, minimum
Moisture holding capacity	38 - 42%
Shipping weight*	650 - 700 kg/m³
Particle size range	0.3 to 1.2 mm
> 1.2 mm	Nil
< 0.355 mm	1.0%, maximum
Uniformity co-efficient	1.2, maximum
Effective size	0.45 to 0.55 mm
Maximum operating temperature	60° C in OH form, 80° C in other forms
Operating pH range	0 to 14
Resistance to reducing agents	Good
Resistance to oxidizing agents	Generally good, chlorine should be absent
Chemical resistance	Insoluble in dilute solutions of acids, bases and common solvents

Osmotic stability Excellent

*Weight of resin, as supplied, occupying 1m³ 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 : 35/40/42 cft
MS/HDPE drums with liner bags : 180/200 lts

Fiber drums with liner bags : 7 cft

Storage

lon exchange resins require proper care at all times. The resin 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 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 lon 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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