

# INDION® CAM 14

## Description

INDION CAM 14 is a nuclear grade mixed ion exchange resin. It is a mixture of highly purified and super regenerated INDION 223 H<sup>+</sup> and INDION GS300 NG in volume ratio of 1:4.

## Applications

INDION CAM 14 is recommended in any non regenerable mixed bed application where reliable production of the highest quality water is required and where "as supplied" resin must have an absolute minimum of ionic and nonionic contamination.

### Characteristics

#### Physical

Appearance	:	Spherical beads
Shipping weight *	:	680 kg/m <sup>3</sup> , approximately
Particle size range	:	0.3 to 1.2 mm
> 1.2 mm	:	5.0%, maximum
< 0.3 mm	:	1.0%, maximum
Uniformity co-efficient	:	1.7, maximum
Effective size	:	0.45 to 0.60 mm
Microscopic examination	:	Surface cracks not more than 5%

#### Chemical

#### Cation resin

#### Anion resin

Matrix	Styrene DVB copolymer	Styrene DVB copolymer
Type	Gel	Gel
Functional group	Sulphonic acid	Quaternary ammonium
Total exchange capacity	1.9 meq/ml	1.1 meq/ml
Ionic conversion	99% minimum in H form	94% minimum in OH form 1% maximum in Cl form 5% maximum in CO <sub>3</sub> form
Moisture holding capacity	47 - 54 %	46 - 52 %
Bead strength	500 g/bead, (avg)	250 g/bead, (avg)
Thermal stability	Up to 120° C	Up to 60° C

Chemical stability	:	Stable in pH range 0 - 14 Resistant to oxidizing and reducing agents Stable in Radiation field upto 10 <sup>7</sup> rad
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#### Ionic impurities

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

\* Weight of resin, as supplied, occupying 1 m<sup>3</sup> in a unit after backwashing and draining.

## Packing

PVC Jars with inner liner bags	5 / 6 lts
LDPE lined bags	0.5 cft / 1 cft / 25 lts
HDPE lined bags	25 / 50 lts
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. The drums should therefore be always kept in shade. Since INDION CAM 14 is supplied in highly regenerated

condition, any exposure to atmospheric air must be avoided as this will convert it to the carbonate form. The resin drums should therefore be kept 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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