

# INDION® CAM 14

## Description

CAM 14 is a nuclear grade mixed bed ion exchange resin. It is a mixture of highly purified and super regenerated INDION 223 H<sup>+</sup> and INDION GS300 NG in 1:2 equivalent ratio . ( approx 1:4 volume ratio )

### Physical Characteristics

Matrix structure _____	Crosslinked polystyrene divinyl benzene
Appearance _____	Uniform ,strong , spherical beads free from surface cracks , supplied in moist completely swollen condition.
Particle size _____	16 to 50 US Standard mesh
Uniformity coefficient _____	1.8 maximum
Effective size _____	0.45 – 0.6mm
Fines content passing through 300 micron Sieve ( No. 52 BSS / 30 IS ) _____	0.5% ,maximum
Microscopic Examination _____	Beads with surface cracks should not be more than 3%.

### Stability

- a) Stable in pH range 0 – 14
- b) Resistant to oxidising and reducing agents.
- c) Stable in Radiation field up to 10<sup>7</sup> rad

### Chemical Characteristics

	INDION 223 H <sup>+</sup>	INDION GS 300 NG
Form to be supplied	H <sup>+</sup>	OH <sup>-</sup>
Chemical nature	Strongly acidic with sulfonic Acid functional groups	Strongly basic quarternary ammonium functional groups
Total exchange capacity	1.8 meq/ml (H <sup>+</sup> form) ,min. 99% in H <sup>+</sup> form min.	1.0 meq/ml of wet resin , min. a. Hydroxide : 94% minimum b. Chloride : 1% max. c. Carbonate : 5% max.
Moisture content	47 to 53 % (H form)	60 % (OH <sup>-</sup> form ) , max.
Bead strength	500 gm/bead (avg), min.	250 gms/bead (avg), min.
Temp. stability	Up to 120 °C	Up to 60 °C
Impurities ( mg/ltr of wet resin ), maximum		
Iron content	20	20
Copper content	10	10
Heavy metals	10	10
Water soluble Organics	0.1 mg KMnO <sub>4</sub> /ml of wet resin maximum	0.1 mg KMnO <sub>4</sub> /ml of wet resin ,maximum ( maximum )

## Application

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.

## Packing

INDION CAM 14 is supplied in standard packs of 180 litres. The material is packed in the plastic bags contained in mild steel drums.

## Storage

Ion exchange resins require proper care at all times. The resins must never be allowed to 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.

**INDION**



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