

INDION[®] 790

Description

INDION 790 resin is a macroporous strongly acidic cation exchanger specially used in the catalytic application. INDION 790 is supplied in wet form as dark grey spherical beads. A proper mix of high cross-linkage and porosity gives this product outstanding physical stability while maintaining the high exchange capacity of conventional gel resins. The unique structure of INDION 790 makes it the most suitable heterogeneous acid catalyst for various organic reactions. It is extremely resistant to breakdowns by osmotic, mechanical, and thermal shock.

INDION 790 can be used directly in aqueous systems or in organic media after conditioning with a water miscible solvent. The right combination of porosity, surface area, and acid capacity makes it the best choice for etherification (MTBE, ETBE, TAME), esterification, and hydration reactions. It is also used for chemical processing applications to remove impurities (metal ions) and basic organic compounds (amines etc.) from aqueous and non-aqueous systems (appropriate pretreatment is required).

Characteristics	
Appearance	Opaque dark grey beads
Matrix	Styrene divinylbenzene copolymer
Functional Group	Sulphonic acid
Ionic form as supplied	Hydrogen
Total exchange capacity	1.8 meq/ml, minimum
Moisture holding capacity	51 - 55 %
Shipping weight*	720 - 760 kg/m ³
Particle size range	0.3 to 1.2 mm
> 1.2 mm	5.0%, maximum
< 0.355 mm	1.0%, maximum
Uniformity co-efficient	1.7, maximum
Effective size	0.45 to 0.60 mm
Maximum operating temperature	120 ^o C
Operating pH range	0 to 14
Resistance to reducing agents	Good
Resistance to oxidizing agents	Generally good, chlorine should be absent
*Weight of resin, as supplied, occupying 1 m ³ 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

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

Repeated drying and rewetting produce stresses analogous to those due to osmotic shock and can lead to fragmentation of Ion exchangers.

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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Manufacturing Units

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