

# Recommended Pre - treatment for INDION resins used in food processing and potable water applications

#### INTRODUCTION

Indion resins used for food processing and potable water applications are manufactured under stringent quality control norms and with utmost care. Our customers are advised to carry out following pre-treatment to obtain best results. This pre-treatment is an integral part of the overall process which ensure that the ion exchange resins will comply with the organic extractives level required by US Code of Federal Regulations, Title 21, Part 173.25, Paragraph (c) (4) or Council of Europe Resolution AP(2004)3.

# **PRE-TREATMENT FOR:**

### a) Strong acid cation resins - H<sup>+</sup> cycle

If resins are procured in  $Na^+$  form, regenerate with 4 BV of HCl or  $H_2SO_4$ , rinse with 2 to 4 BV of water and exhaust with 2 BV of 4% NaOH or 10% NaCl solution followed by rinse.

Repeat above steps one more time followed by regenerating with 4 BV of HCl or H<sub>2</sub>SO<sub>4</sub> and rinse.

If resins are procured in H<sup>+</sup> form, rinse with 4 to 8 BV of water and exhaust with 2 BV of 4% NaOH or 10% NaCl solution followed by rinse, regenerate with 2 BV of HCl or H<sub>2</sub>SO<sub>4</sub> followed by rinse.

Repeat above steps one more time and take into service.

#### b) Strong acid cation resins - Na<sup>+</sup> cycle

Exhaust the resin with raw water or dilute CaCl2.

Rinse

Regenerate with 2 BV of 10% NaCl

Rinse

Repeat above steps one more time and take into service.

## c) Weak acid cation resins

Exhaust the resin with 4 BV of 10% NaOH

Rinse

Regenerate with 2 - 3 BV of HCl or H<sub>2</sub>SO<sub>4</sub>.

Rinse

Repeat above steps one more time and take into service.

#### d) Strong base anion resins

Regenerate with 2 BV of 4 to 5% NaOH

Rinse

Exhaust the resin with 2 BV of 4% HCl or H<sub>2</sub>SO<sub>4</sub>.

Rinse

Repeat above steps one more time followed by regeneration with 2-3 BV of 4 to 5 % NaOH , rinse and take into service.

1 BV (bed volume) = 1 litre per litre of resin.

#### e) Weak base anion resins

Exhaust the resin with 2 BV of 4% HCl or  $H_2SO_4$ . Rinse Regenerate with 2 BV of NaOH. Rinse

Repeat above steps one more time and take into service.

Ion Exchange resins require proper care at all times. The resin must never be allowed to become dry. Regularly open the the drums/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 drums/bags in the shade. Recommended storage temperature is between 20 deg C and 40 deg C.

1 BV (bed volume) = 1 litre per litre of resin.

All manufacturing units are ISO 9001 & 14001 certified. Our Patancheru unit is also OHSAS 18001 certified.

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. Please contact our regional / branch offices for current product specifications.

**INDION** is the registered trademark of Ion Exchange (India) Ltd.

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