

# Case Study

## **INDION® 225H & INDION® 860 S for Starch Industry - 2**

### Introduction

Ion Exchange (I) Ltd., conducted a study at a liquid glucose manufacturing unit which is a most trusted brand for over 35 years. The company manufactures products like high maltose syrup, sorbitol, extrose monohydrate, dextrose syrup.

### Challenge:

Reduction of high ash content, colour and conductivity in Liquid Glucose. Due to high ash and colour content the product could not meet the requirements of the end users.

### Solution:

To reduce ash content, colour and conductivity liquid glucose was passed through columns of INDION 225H & INDION 860 S.

### Results:

After passing liquid glucose through ion exchange columns containing INDION 225 H and INDION 860 S, the treated liquid glucose exactly meet the customer's requirement with respect to reduction in ash content

Details of existing Liquid Glucose deashing plant:

	INDION 225 H	INDION 860 S
Resin qty, liters	1250	1400
Regeneration level, kg/m <sup>3</sup>	72	57
Service flow, m <sup>3</sup> /h	2.5	2.5
OBR, m <sup>3</sup>	22.5	22.5

Parameter	Before Treatment	After Treatment
Ash Content, w/ w	0.8 %	<0.2 %

### Pre-treatment

#### a) SAC resins INDION 225 H

Rinse with approx 20 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 the above steps one more time followed by regeneration and rinse

#### b) WBA INDION 860 S resins

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

Repeat the above steps one more time.