

Case Study

INDION® 225H & INDION® 860 S for Starch Industry - 1

Introduction

Ion Exchange (I) Ltd., conducted a study at a liquid glucose manufacturing unit which is a most trusted brand for over 60 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	1600	2200
Regeneration level, kg/m ³	75	68
Service flow, m ³ /h	2	2
OBR, m ³	35	35

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 H₂SO₄ 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 H₂SO₄. Rinse. Regenerate with 2 BV of NaOH. Rinse.

Repeat the above steps one more time.