

Case Study

INDION 225 H, INDION 266 and INDION 810 for n-MMO purification in Textile Industry

Introduction

n-MMO is used in the Textile Industry as a solvent of cellulose. During textile processing n-MMO is contaminated with inorganic salts and degraded cellulose. In order to recycle n-MMO needs to be purified.

Challenge:

To reduce the inorganic salts and organic content in used n-MMO in order to make it suitable for recycle

Solution:

Spent n-MMO is passed through ion exchange columns containing INDION 225 H, INDION 266 and INDION 810.

The first column contains both INDION 225 H and INDION 266 resins. Second ion exchange column contains INDION 810 resin.

The treated n-MMO meets the customer's requirement with respect to reduction in inorganic salts and organic as explained in the results below.

Results:

Details of existing column:

	INDION 225 H, INDION 266	INDION 810
Resins qty, lit	6.75 each	18
Regeneration level, Kg/m ³	140	111
Service flow, m ³ /h	25	25
OBR, m ³	1200 - 1300	1200 - 1300

Spent and treated n-MMO characteristics:			
	pH	conductivity, μ S/cm	Organic, ppm
Spent	7.1 - 7.5	140 - 180	500 - 2000
Treated	8.5 - 9	< 25	Nil