Description -
Methanol-Isopropyl Alcohol (IPA)-Water Separation System

Process Flow Diagram

Process Description
Isopropyl Alcohol (IPA), water and methanol mixture is fed to the first column and methanol with 99.5 % (wt.) purity is removed in this column. IPA-water azeotrope is drawn as the bottom product.

The typical feed composition is as follows
- IPA: 70-55 % (wt.)
- Water: 10-15 % (wt.)
- Methanol: 15-20% (wt.)

Design basis: 90-95 % Recovery of methanol
Operating Conditions

Operating Pressure: Column is operating under atmospheric pressure
Column Internals: Structured packing for the column is (Type 5.0L)

Experience

Finepac® Structures has supplied a number of separating systems involving azeotropic distillation. IPA-water-ethanol is a typical system involving IPA-water azeotrope. The design involves prediction of azeotrope of IPA-water.