PRINCIPAL APPLICATIONS

It is specially designed for removal of bitterness from citrus juice. Integrating SEPRO’s patent design of equipments, JO-200 citrus treatment system can debitter citrus juice with pulp inside up to 5%.

SUGGESTED LABORATORY OPERATIONS

NaOH solution wash

Solvent 4% NaOH solution

Volume 3-4 bed volumes

Flow rate 1-2 BV/hr

Wash the resin in the column under above conditions. At the end of wash, keep 20-30mm more alkali liquor covering the resin layer. Immerse the resin in the solution for 2-4 hrs. Rinse the resin with deionized water till the out-water PH 7-9.

HCl solution wash

Solvent—4% HCl solution

Volume—3-4 BV

Flow rate—1-2 BV/hr

Wash and immerse the resin in the same way as 1. Rinse the resin with deionized water till the out-water PH 5-7.

Alcoholic solution wash:

Solvent—methanol or alcohol (>95%)

Volume –2-4 BV
Flow rate—1-2BV/hr

Wash the resin with >95% methanol or alcohol solution under above conditions. Be sure no bubble inside the resin. Rinse with deionized water at flow rate of 1-2 BV/hr for 2-3 hrs. Keep 2-5 mm more water covering the resin layer in case of the beads may dry out.

In some conditions, PH effects the adsorption efficiency. Adjust feed liquor to optimum PH which is determined by static tests.

Pour the feed liquor into column, from top to bottom. Control the loading rate at 1-4 BV/hr. Make sure no bubble inside the resin layer. In the experimental test, the demand of filled column is height-diameter >3, while the producing devices require resin layer depth ≥800mm. Testify the leakage of target components in the outflow fluid. End the adsorption when the leakage of target components reaches 10%.

Displace the remained feed liquor in the column with 1-2 BV deionized water. According to requirement of decolorization or purify, washing the resin with a mount of deionized water.

Wash the resin with methanol or alcohol solvent at flow rate of 0.2-3 BV/hr to elute adsorbed purpose components. Collect the eluate, which is the condensed target or removal liquor.

Rinse resin with deionized water to alcohol-free flavor, and then use 4% NaOH solution at 1-2BV/hr, followed by water washing for 2-3 hr to PH 7. Now the resin is ready for next cycle.

REGULATORY APPROVALS

ISO9000 & 14001 & 18001
WQA & FDA
Kosher Certified

**TYPICAL PACKAGING**

1 ft³ Sack

25 L Sack

5 ft³ Drum (Fiber)

1 m³ Supersack

42 ft³ Supersack

**TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:**

<table>
<thead>
<tr>
<th>Index name</th>
<th>JO-200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Appearance</td>
<td>Brick red to tan opaque sphere beads</td>
</tr>
<tr>
<td>Moisture %</td>
<td>55-65</td>
</tr>
<tr>
<td>Wet apparent density</td>
<td>0.7-0.8</td>
</tr>
<tr>
<td>Wet true density g/ml</td>
<td>1.05~1.15</td>
</tr>
<tr>
<td>Grainsize%(0.4-0.8)mm</td>
<td>≥98</td>
</tr>
<tr>
<td>Porosity ml/g</td>
<td>≥1.1</td>
</tr>
<tr>
<td>Specific surface area m²/g</td>
<td>1200</td>
</tr>
</tbody>
</table>