Resinex™ KP UB H
Strong acid cation exchange resin

Resinex™ KP UB H is a high purity, premium grade, strongly acid macroporous-type cation exchange resin. The macroporous crosslinked matrix offers a very high resistance to osmotic shock, attrition and organic fouling. Its remarkable physical stability makes it suitable for industrial applications at very high velocity such as treatment of condensate. The selected bead distribution of Resinex™ KP UB H - very close to monodisperse - is especially adapted for all modern counter-current systems (i.e. Schwebebett, UPCORE,...) and mixed bed systems.

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Crosslinked polystyrene divinylbenzene</td>
</tr>
<tr>
<td>Form</td>
<td>Macroporous, opaque, spherical beads</td>
</tr>
<tr>
<td>Functional group</td>
<td>Sulfonic acid</td>
</tr>
<tr>
<td>Whole bead count</td>
<td>96% min.</td>
</tr>
<tr>
<td>Ionic form, as shipped</td>
<td>H⁺</td>
</tr>
<tr>
<td>Bead size (≥90%)</td>
<td>0.50 - 0.71 mm</td>
</tr>
<tr>
<td>Uniformity coefficient</td>
<td>1.20 max.</td>
</tr>
<tr>
<td>Bulk density, as shipped</td>
<td>780 kg/m³</td>
</tr>
<tr>
<td>Real density</td>
<td>1.27 g/cm³</td>
</tr>
<tr>
<td>Water retention</td>
<td>45 - 55%</td>
</tr>
<tr>
<td>Total capacity (Na⁺ form)</td>
<td>1.80 eq/l min.</td>
</tr>
<tr>
<td>Volume change H⁺ → Na⁺</td>
<td>-8% max.</td>
</tr>
<tr>
<td>Stability, temperature</td>
<td>120°C max.</td>
</tr>
<tr>
<td>Stability, pH</td>
<td>0 - 14</td>
</tr>
</tbody>
</table>

Key Features and Benefits

- High Integrity Beads
  Excellent resistance to mechanical degradation ensures low pressure drop
- Excellent Resistance To Organic Fouling
  Removable organics
- High Resistance To Osmotic Shock
  Extended lifetime and very low number of broken beads
- Very High Total Capacity
  Economical advantage
- Uniform Bead Size
  Lower pressure drop and regenerant consumption

Typical Applications

- Decationisation in industrial water treatment, especially in presence of high organic loadings
- Demineralisation and polishing when used in combination with Resinex™ AP

Standard Design Conditions

- Bed depth: > 700 mm
- Service flow rate: 8 - 55 BV/h
- Backwash expansion: 50 - 75%

Standard Packaging

- 25 lit. PE valve bag
- 1000 litre big bag

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Resinex™ KP UB H
Strong acid cation exchange resin

Counter-Flow
Standard Regeneration Parameters

Concentration

Level

Flow rate regenerant

Contact time regenerant

Flow rate slow rinse

Slow rinse water required

Flow rate fast rinse

Fast rinse water required

5% HCl

60-120 g/l

4-6 BV/h

30-60 min.

4-6 BV/h

2-4 BV

10-30 BV/h

6-10 BV

Co-Flow

Concentration

Level

Flow rate regenerant

Contact time regenerant

Flow rate slow rinse

Slow rinse water required

Flow rate fast rinse

Fast rinse water required

5% HCl

50-80 g/l

6-8 BV/h

20-40 min.

6-8 BV/h

6-8 BV/h

2 BV

6-10 BV

Counter-Flow

Backwash Expansion

5°C (40°F)

5°C (40°F)

10°C (50°F)

10°C (50°F)

20°C (68°F)

20°C (68°F)

30°C (86°F)

30°C (86°F)

40°C (104°F)

40°C (104°F)

5% HCl

5% HCl

Pressure Drop

Pressure Drop, kPa/m

Pressure Drop, bar/m

Flow Rate, m/h

Bed Expansion, %

Model

Model

Model

Model

Model

Model

Model

Model

Model

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CAUTION
Strong oxidizing agents such as nitric acid can react violently with ion exchange resins and cause explosive type reactions. Before using strong oxidants, consult sources knowledgeable in the handling of these materials.

Product Packing

25 lit. polyethylene valve bag

48 bags per pallet

Polypropylene FIBCs

(big bag), 1.000 lit.

25 lit. polyethylene valve bag

48 bags per pallet

Polypropylene FIBCs

(big bag), 1.000 lit.

WORLDWIDE DISTRIBUTORS A diverse network of agents, strategically located around the world

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