**Resinex™ K-8 UB**

Strong acid cation resin

**Resinex™ K-8 UB** is a strongly acidic gel-type cation exchange resin. The crosslinked, polystyrene divinylbenzene matrix provides excellent resistance to physical breakdown. The high capacity achieved in demineralisation makes it suitable for most standard industrial water treatment applications. Together with the optimisation of regenerant consumption, **Resinex™ K-8 UB** will allow you to obtain a high quality process water in economical manner. The selected bead distribution is especially adapted for all modern systems (UPCORE, Schwebebett,...) and mixed bed systems.

### Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Crosslinked polystyrene divinylbenzene</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td>Gel-type, amber, spherical beads</td>
</tr>
<tr>
<td><strong>Functional group</strong></td>
<td>Sulfonic acid</td>
</tr>
<tr>
<td><strong>Whole bead count</strong></td>
<td>96% min.</td>
</tr>
<tr>
<td><strong>Ionic form, as shipped</strong></td>
<td>Na⁺</td>
</tr>
<tr>
<td><strong>Bead size</strong></td>
<td>(≥ 90%) 0.50 - 0.71 mm</td>
</tr>
<tr>
<td><strong>Uniformity coefficient</strong></td>
<td>1.20 max.</td>
</tr>
<tr>
<td><strong>Bulk density, as shipped</strong></td>
<td>820 kg/m³</td>
</tr>
<tr>
<td><strong>Real density</strong></td>
<td>1.28 g/cm³</td>
</tr>
<tr>
<td><strong>Water retention</strong></td>
<td>45 - 48%</td>
</tr>
<tr>
<td><strong>Total capacity (Na⁺ form)</strong></td>
<td>2.00 eq/l min.</td>
</tr>
<tr>
<td><strong>Volume change Na⁺ → H⁺</strong></td>
<td>8% max.</td>
</tr>
<tr>
<td><strong>Stability, temperature</strong></td>
<td>120°C max.</td>
</tr>
<tr>
<td><strong>Stability, pH</strong></td>
<td>0 - 14</td>
</tr>
</tbody>
</table>

### Key Features and Benefits

- **High Integrity Beads**
  - Excellent resistance to mechanical degradation ensures low pressure drop
- **Extended Operating Capacity**
  - Economical advantage
- **European ResAP (2004) 3 Approved**
  - Meets European Council Resolution AP (2004) 3 for use of ion exchange resins in processing of food products
- **WRAS BS 6920 Approved**
  - BS 6920 for cold water and hot water up to 85°C
- **Uniform Bead Size**
  - Lower pressure drop and regenerant consumption
- **Perfect Separation**
  - Suitable for Mixed-bed applications

### Standard Design Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bed depth</strong></td>
<td>&gt; 700 mm</td>
</tr>
<tr>
<td><strong>Service flow rate</strong></td>
<td>8 - 55 BV/h</td>
</tr>
<tr>
<td><strong>Backwash expansion</strong></td>
<td>50 - 75%</td>
</tr>
</tbody>
</table>

### Typical Applications

- **Industrial Softening**
- **Demineralisation in industrial water treatment systems together with Resinex™ A-4 UB**
- **Polishing Mixed-bed systems together with Resinex™ A-4 UB**

### Standard Packaging

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

---

This product has been tested and certified to NSF/ANSI Standard 44 for materials safety only. A minimum flow of 0.39 gpm per cubic foot of media is required.
**Resinex™ K-8 UB**

**Strong acid cation resin**

**Product Packing**
- 25 lit. polyethylene valve bag
- 48 bags per pallet
- Polypropylene FIBC's (big bag), 1,000 lit.

**Pressure Drop**

<table>
<thead>
<tr>
<th>Flow Rate, m/h</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Drop, kPa/m</td>
<td>0</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

**Backwash Expansion**

<table>
<thead>
<tr>
<th>Flow Rate, m/h</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed Expansion, %</td>
<td>0</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

**Standard Regeneration Parameters for Softening**

- **Co-Flow**
  - Concentration: 10% NaCl
  - Level: 80-300 g/l
  - Flow rate regeneration: 4-6 BV/h
  - Contact time regeneration: 30-60 min.
  - Flow rate rinse: 5-20 BV/h
  - Rinse water required: 8-15 BV

- **Counter-Flow**
  - Concentration: 10% NaCl
  - Level: 50-150 g/l
  - Flow rate regeneration: 5-8 BV/h
  - Contact time regeneration: 20-40 min.

**Standard Regeneration Parameters for Demineralisation**

- **Co-Flow**
  - Concentration: 8% HCl
  - Level: 60-150 g/l
  - Flow rate regenerant: 4-6 BV/h
  - Contact time regeneration: 30-60 min.
  - Flow rate slow rinse: 5-20 BV/h
  - Slow rinse water required: 8-15 BV
  - Flow rate fast rinse: 20-40 BV/h
  - Fast rinse water required: 8-15 BV

- **Counter-Flow**
  - Concentration: 5% HCl
  - Level: 45-70 g/l
  - Flow rate regenerant: 5-8 BV/h
  - Contact time regeneration: 20-40 min.
  - Flow rate rinse: 5-20 BV/h
  - Rinse water required: 8-15 BV

---

**NOTICE**

Jacobi Carbons reserves the right to change product specifications without prior notification. The information contained in this datasheet is intended to assist a customer in the evaluation and selection of products supplied by Jacobi Carbons. The customer is responsible for determining whether products and the information contained in this document are appropriate for the customer’s use. Jacobi Carbons assumes no obligation or liability for the usage of the information in this datasheet, no guarantees or warranties, expressed or implied, are provided. Jacobi Carbons disclaims responsibility and the user must accept full responsibility for performance of systems based on this data.

**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.

---

**LENNTECH**

info@lenntech.com Tel. +31-152-610-900

www.lenntech.com Fax. +31-152-616-289

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

Resinex and Jacobi are trademarks of Jacobi Carbons. © Jacobi Carbons AB, 2010