Resinex™ KWP 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™ KWP 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>Na⁺</td>
</tr>
<tr>
<td>Bead size</td>
<td>0.42 - 1.25 mm</td>
</tr>
<tr>
<td>Uniformity coefficient</td>
<td>1.60 max.</td>
</tr>
<tr>
<td>Bulk density, as shipped</td>
<td>790 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 Na⁺ –&gt; H⁺</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
- **Special Bead Size**
  Lower pressure drop

**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**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed depth</td>
<td>&gt; 700 mm</td>
</tr>
<tr>
<td>Service flow rate</td>
<td>8 - 40 BV/h</td>
</tr>
<tr>
<td>Backwash expansion</td>
<td>50 - 75%</td>
</tr>
</tbody>
</table>

**Standard Packaging**

- 25 ft. 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™ KWP
Strong acid cation exchange resin

Pressure Drop

Start your regeneration

Co-Flow

Concentration
5% HCl

Level
60-120 g/l

Flow rate regenerant
4-6 BV/h

Contact time regenerant
30-60 min.

Flow rate slow rinse
4-6 BV/h

Slow rinse water required
2-4 BV

Flow rate fast rinse
10-30 BV/h

Fast rinse water required
6-10 BV

Counter-Flow

Concentration
5% HCl

Level
50-80 g/l

Flow rate regenerant
6-8 BV/h

Contact time regenerant
20-40 min.

Flow rate slow rinse
6-8 BV/h

Slow rinse water required
6-8 BV

Flow rate fast rinse
20-40 BV/h

Fast rinse water required
6-10 BV

Backwash Expansion

NOTICE
Due to the progressive nature of the Jacobi Carbons Group and the continually improving design and performance of our products, we reserve the right to change system specifications without prior notification. The information contained in this document is intended to assist 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 process. 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

Polypropylene FBCs
(big bag), 1,000 lit.

Product Packing

25 lit. polyethylene valve bag
48 bags per pallet

Polypropylene FBCs
(big bag), 1,000 lit.

RX-KWP_e_Rev11_20140716