Adsorbent Desiccant

Van Air Systems is the leading source of desiccants used for drying compressed air and gas.

Adsorbent desiccant from Van Air Systems is used for point-of-use drying applications as well as for regenerative drying applications.

**Activated Alumina** is a porous form of aluminum oxide. It has a high surface area which adsorbs vapors without any change in form.

**Silica Gel** is a bead consisting of 97-100% silica. Van Air offers a high quality color indicating blue translucent bead. Dew points of -40°F and lower may be achieved with silica gel depending on dryer design and operating conditions.

**Molecular Sieve** is a sodium aluminosilicate. Van Air Systems offers molecular sieve with a 4 angstrom pore size (4Å). It has a fixed pore size according to the material specified and 4 Angstrom is the most common. Molecular Sieve is normally used for special process applications.

---

**FEATURES**

- High Moisture Retention
- Ability to achieve -40°F Dew Point
- Uniform Bead Shape
- Regenerative Drying

---

**BENEFITS OF THE ADSORBENT DESICCANT**

- Low Dew Point // Reliable

vanairsystems.com
Activated Alumina

FEATURES & BENEFITS
• Low to zero dust discharge
• High adsorption capacity
• Low abrasion
• Resists slugs of liquid water
• High crush strength
• Ability to achieve -40°F and lower dew points

APPLICATIONS
2-5 Year Service Life Capability

APPLICATIONS
• Regenerative Dryers
• Acid Removal
• Process Stream Purification
• Hydrocarbon Adsorption

Silica Gel

FEATURES & BENEFITS
• High moisture retention capacity under dynamic conditions
• Ability to achieve -40°F and lower dew points
• Uniform bead shape
• Provides visual indication of desiccant condition, indicating colors (blue = dry; pink = wet)

APPLICATIONS
Consists Of 97-100% Silica

APPLICATIONS
• Industrial Compressed Air Systems
• Tool Preservation

Molecular Sieve

FEATURES & BENEFITS
• Uniform capacity
• Round bead
• High moisture retention
• Produces a -100°F dew point

APPLICATIONS
Effective In Special Process Applications

APPLICATIONS
• Petroleum Industry
• Gas Stream Purification
• Chem Labs
• Liquid Natural Gas Plants

Physical Properties

<table>
<thead>
<tr>
<th>Activated Alumina</th>
<th>Color &amp; Form</th>
<th>Bulk Density</th>
<th>Crush Strength</th>
<th>Surface Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8” (2-5mm)</td>
<td>White bead</td>
<td>48 lbs/ft³</td>
<td>17-30 lbs</td>
<td>1.74 x 10⁶ sq ft/lb.</td>
</tr>
<tr>
<td>3/16” (4-8mm)</td>
<td>White bead</td>
<td>48 lbs/ft³</td>
<td>45-60 lbs</td>
<td>1.65 x 10⁶ sq ft/lb</td>
</tr>
<tr>
<td>1/4” (5-10mm)</td>
<td>White bead</td>
<td>48 lbs/ft³</td>
<td>50-70 lbs</td>
<td>1.59 x 10⁶ sq ft/lb</td>
</tr>
</tbody>
</table>

Silica Gel

<table>
<thead>
<tr>
<th>Color &amp; Form</th>
<th>Bulk Density</th>
<th>Crush Strength</th>
<th>Surface Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue to Pink</td>
<td>45 lbs/ft³</td>
<td>N/A</td>
<td>1/8” (3-5mm)</td>
</tr>
</tbody>
</table>

Molecular Sieve

<table>
<thead>
<tr>
<th>Color &amp; Form</th>
<th>Bulk Density</th>
<th>Crush Strength</th>
<th>Surface Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off white/tan bead</td>
<td>40 lbs/ft³ (±/- 10%)</td>
<td>100-120 lbs</td>
<td>3.67 x 10⁶ sq ft/lb</td>
</tr>
</tbody>
</table>
# Adsorbent Desiccant MSDS Downloads

## Material Safety Data Sheets

<table>
<thead>
<tr>
<th>Activated Alumina</th>
<th>Molecular Sieve</th>
<th>Silica Gel</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Activated Alumina" /></td>
<td><img src="image2.jpg" alt="Molecular Sieve" /></td>
<td><img src="image3.jpg" alt="Silica Gel" /></td>
</tr>
</tbody>
</table>