AD-1® Molecular Sieve Adsorbent

Flow Dry® Technology AD-1® molecular sieve adsorbent was created in response to a strong market need for a high quality, high performing, yet economical desiccant for drying HFC-134a and other refrigerants.

For years, one supplier’s product line set a standard for quality and performance in refrigerant drying applications that other suppliers could not meet. An equivalent product is now available. AD-1® molecular sieve was specifically developed as the economic desiccant alternative to meeting those high standards for:

- High water capacity
- Strong resistance to attrition (wet and dry)
- High bead crush strength
- Density
- Chemical compatibility

The desiccant’s purpose is to remove moisture from the refrigerant. AD-1® molecular sieve delivers the same drying performance that users have come to expect.

System vibration has always been an issue in refrigerant systems. Vibration can cause molecular sieve beads to move or rub against each other. This can cause dust to form from bead attrition, which can then cause premature system failure due to plugging, or excessive component wear. AD-1® molecular sieve meets and exceeds the industry standards for attrition resistance. It is important to have excellent attrition resistance when the beads are dry - early in the system life, and when wet - as the system ages and the desiccant has adsorbed more moisture.

High bead crush strength signifies a durable product that can withstand the rigors of the dryer assembly process and the end use application. AD-1® desiccant exceeds industry expectations with superior bead crush strength.

Most dryers have a defined, but limited volume available for the desiccant. AD-1® desiccant’s density utilizes the right amount of space in a dryer.

AD-1® molecular sieve has proven chemically compatible with HFC-134a. Discuss other refrigerant applications with your Flow Dry representative.

AD-1 compatibility with R1234yf, tracer, felt and oils:

<table>
<thead>
<tr>
<th>Company</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>Delphi</td>
<td>PS-D1</td>
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<tr>
<td>MHI</td>
<td>PAG46A1</td>
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<tr>
<td>Panasonic</td>
<td>PS10R(P2)</td>
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<tr>
<td>Valeo</td>
<td>200YF and 100YF</td>
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<tr>
<td>Visteon</td>
<td>FD46XG</td>
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<tr>
<td>Denso</td>
<td>ND12</td>
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<tr>
<td>Sanden</td>
<td>SP-A2(PAG5)</td>
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Typical Properties

- Water Capacity (wt%) 17%
- LOI 960º C, max (wt%) 1.0%
- Density, min (lbs/ft3) 53 (0.848 gm/ml)
- Crush, avg 25 beads, min (lbs.f) 14 (62.0 N)
- Attrition, max (wt%) 2.0%

AD-1® adsorbent specification sheet available upon request.

Bead Sizes Available
AD-1® molecular sieve standard bead size is 8x12 mesh (2mm). Other bead sizes may be made available.

Quality Assurance
AD-1® molecular sieve production is rigorously tested, using advanced testing equipment and methods, for strict compliance to industry standards.

Safety and Handling
Contact your Flow Dry representative for a copy of the AD-1® molecular sieve MSDS and for any questions related to handling the product.

For More Information
For more detailed information regarding AD-1® molecular sieve technical data and competitive product comparisons, contact Flow Dry® Technology main office:

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