Spherical Alumina (Alunabeads™ CB Series)

Typical properties of common grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>CB-P02</th>
<th>CB-P05</th>
<th>CB-P07</th>
<th>CB-P10</th>
<th>CB-P15</th>
<th>CB-P40</th>
<th>CB-A20S</th>
<th>CB-A30S</th>
<th>CB-A40</th>
<th>CB-A50S</th>
<th>CB-A70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Composition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOI %</td>
<td>0.06</td>
<td>0.05</td>
<td>0.07</td>
<td>0.05</td>
<td>0.04</td>
<td>0.05</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Fe₂O₃ %</td>
<td>0.04</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>SiO₂ %</td>
<td>0.06</td>
<td>0.03</td>
<td>0.02</td>
<td>0.02</td>
<td>0.06</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>0.05</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>Na₂O %</td>
<td>0.02</td>
<td>0.01</td>
<td>0.19</td>
<td>0.07</td>
<td>0.06</td>
<td>0.07</td>
<td>0.03</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.06</td>
</tr>
<tr>
<td>Na⁺ ppm</td>
<td>5</td>
<td>4</td>
<td>17</td>
<td>5</td>
<td>6</td>
<td>20</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>30</td>
</tr>
</tbody>
</table>

Mean Particle Size(μm)

|        | μm | 2   | 4   | 7   | 8   | 16  | 44  | 21  | 28  | 40  | 50  | 71  |

BET Specific Surface Area

|        | m²/g | 1.1 | 0.7 | 0.6 | 0.6 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |

Bulk Density

|        | g/cm³ | 1.1 | 1.3 | 1.5 | 1.7 | 1.7 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 |
|        |       | 1.9 | 2.2 | 2.4 | 2.5 | 2.5 | 2.5 | 2.3 | 2.3 | 2.3 | 2.4 |

Tapped g/cm³

|        | 8    | 9   | 11  | 6   | 8   | 74  | 7   | 6   | 17  | 4   | 24  |

Electric Conductivity μS/cm

|        | 8    | 9   | 11  | 6   | 8   | 74  | 7   | 6   | 17  | 4   | 24  |

Properties

1. Alunabeads™ has the proper features for high filling into resin because of its spherical shape. It is especially suitable for applications which require high fluidity.

2. CB-A20S and CB-A50S grades have a sharp particle size distribution, while CB-A40, CB-A70, CB-P02, and CB-P40 grades have a broad particle size distribution.

3. Alunabeads™ (CB Series) has good properties for special abrasives in addition to insulation and thermal filler applications.

SEM images

※The data shown above are representative figures. They are not guaranteed values.