Plasma-resistant thermal spray coating

More and more, it seems that semiconductor parts have been upsizing according with upsizing of wafer size from 8 to 12 inches. Those tendencies make us difficult to manufacture them by using ceramics materials. We are suggesting the aluminum metal materials which are coated ceramics by our thermal spray method. One of our strong point is that our coating membrane is very minute, and has a character of high plasma-resistance. In addition, we can provide the high temperature specifications type whose membrane does not come off under high temperature of 500 degrees.

- **Characteristics**
  - Micro structure of membrane (cross section)
  - Materials properties

<table>
<thead>
<tr>
<th></th>
<th>Y₂O₃</th>
<th>Y₂O₃</th>
<th>Al₂O₃</th>
<th>Al₂O₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC method</td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
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<td>Conventional method</td>
<td><img src="image5.png" alt="Image" /></td>
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</table>

- **Use example**
  - ○Various semiconductor chamber materials
  - (Especially, for chamber parts)
  - ○Abrasion-resistant parts
  - (Rolled materials, etc)
  - ○Electro Static Chuck

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This product specification and the catalog value are the references, and we may change of it without notice.

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