## SDM Appearance Inspection Standard

### Rings inspection standard (1)

Chips are "allowed" only if completely coated.

<table>
<thead>
<tr>
<th>Schematic of ring magnet</th>
<th>Size range</th>
<th>Defects Name</th>
<th>Defect examples</th>
<th>Grade</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 &lt; D ≤ 10 mm</td>
<td>0 &lt; d ≤ 10 mm</td>
<td>0 &lt; H ≤ 10 mm</td>
<td>10 &lt; D ≤ 20 mm</td>
<td>0 &lt; d ≤ 20 mm</td>
<td>0 &lt; H ≤ 20 mm</td>
<td>20 &lt; D ≤ 50 mm</td>
<td>0 &lt; d ≤ 50 mm</td>
<td>0 &lt; H ≤ 50 mm</td>
</tr>
<tr>
<td></td>
<td>L &gt; 100 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OD CHIP

- **A**
  - 1.L1 ≤ 0.5 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.3 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1.5 mm
  - 2.W1 ≤ 1 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 2 mm
  - 2.W1 ≤ 2 mm
  - 3.H1 ≤ 0.8 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 3 mm
  - 2.W1 ≤ 3 mm
  - 3.H1 ≤ 1 mm
  - 4. Only in one position is allowed

- **B**
  - 1.L1 ≤ 0.5 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1 mm
  - 2.W1 ≤ 1 mm
  - 3.H1 ≤ 0.8 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1.5 mm
  - 2.W1 ≤ 1.5 mm
  - 3.H1 ≤ 1 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 2 mm
  - 2.W1 ≤ 2 mm
  - 3.H1 ≤ 1 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 3 mm
  - 2.W1 ≤ 3 mm
  - 3.H1 ≤ 1.5 mm
  - 4. Only in one position is allowed

### ID CHIP

- **A**
  - 1.L1 ≤ 0.5 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.3 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1.5 mm
  - 2.W1 ≤ 0.8 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 2 mm
  - 2.W1 ≤ 2 mm
  - 3.H1 ≤ 0.8 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 3 mm
  - 2.W1 ≤ 3 mm
  - 3.H1 ≤ 1 mm
  - 4. Only in one position is allowed

- **B**
  - 1.L1 ≤ 0.5 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1 mm
  - 2.W1 ≤ 0.5 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 1.5 mm
  - 2.W1 ≤ 0.8 mm
  - 3.H1 ≤ 0.5 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 2 mm
  - 2.W1 ≤ 2 mm
  - 3.H1 ≤ 1 mm
  - 4. Only in one position is allowed
  - 1.L1 ≤ 3 mm
  - 2.W1 ≤ 3 mm
  - 3.H1 ≤ 1.5 mm
  - 4. Only in one position is allowed
### SDM Appearance Inspection Standard

**Ring inspection standard (2)** Chips are "allowed" only if completely coated

<table>
<thead>
<tr>
<th>Schematic of ring magnet</th>
<th>Size range</th>
<th>Defect Name</th>
<th>Defect examples</th>
<th>GRADE</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
<th>Limit defect condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Schematic" /></td>
<td>0 &lt; D ≤ 10 mm 0 &lt; d ≤ 10 mm 0 &lt; H ≤ 10 mm</td>
<td>crack on surface</td>
<td>A</td>
<td>not allowed</td>
<td>1. D1 ≤ 0.3 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 0.5 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 0.8 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 1 mm 2. Only in one position is allowed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 &lt; D ≤ 20 mm 0 &lt; d ≤ 20 mm 0 &lt; H ≤ 20 mm</td>
<td></td>
<td>B</td>
<td>1. D1 ≤ 0.3 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 0.5 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 0.8 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 1 mm 2. Only in one position is allowed</td>
<td>1. D1 ≤ 1.5 mm 2. Only in two positions is allowed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 &lt; D ≤ 50 mm 0 &lt; d ≤ 50 mm 0 &lt; H ≤ 50 mm</td>
<td>crack inside</td>
<td>A</td>
<td>crack inside is not allowed</td>
<td></td>
<td></td>
<td></td>
<td>1. crack inside length ≤ 5 mm 2. crack inside width ≤ 0.2 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50 &lt; D ≤ 100 mm 0 &lt; d ≤ 100 mm 0 &lt; H ≤ 100 mm</td>
<td></td>
<td>B</td>
<td>crack inside is not allowed</td>
<td></td>
<td></td>
<td></td>
<td>1. crack inside length ≤ 8 mm 2. crack inside width ≤ 0.3 mm</td>
<td></td>
</tr>
</tbody>
</table>

**Remark**
1. Blocks with sink hole or other abnormal shape products follow this Inspection Standard
2. Need to handle by mutual agreement when customers have special requirements. If no special requirements, Usually controlled by Grade B.