Grinding Applications with Planetary Machines
With KGS BT Technology Metal Bond Tools

**DRY Grinding of Concrete and Terrazzo**

The KGS BT Technology is specifically adapted to DRY grinding of concrete or terrazzo as indicated in the chart below.

Floor materials vary widely in hardness, strength and abrasiveness depending on the raw materials and processes used to make them. KGS offers a complete range of engineered specifications to handle a broad variety of floor conditions.

**Concrete / Terrazzo**

<table>
<thead>
<tr>
<th>Spec</th>
<th>Bond</th>
<th>Floor</th>
<th>Floor Abrasiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT100</td>
<td>Soft</td>
<td>Very Hard</td>
<td>Not Abrasive</td>
</tr>
<tr>
<td>BT200</td>
<td>Medium</td>
<td>Hard</td>
<td>Medium Abrasive</td>
</tr>
<tr>
<td>BT400</td>
<td>Medium</td>
<td>Medium</td>
<td>Abrasive</td>
</tr>
<tr>
<td>BT600</td>
<td>Hard</td>
<td>Soft</td>
<td>Very Abrasive</td>
</tr>
<tr>
<td>BT800</td>
<td>Hard</td>
<td>Soft</td>
<td>Very Abrasive</td>
</tr>
<tr>
<td>BT900</td>
<td>Hard</td>
<td>Soft</td>
<td>Very Abrasive</td>
</tr>
</tbody>
</table>

**Specification Selection**

KGS understands that the real world conditions can make every floor grinding job a serious challenge. It is important to evaluate the condition of the floor before starting the grinding process. Based on your assessment of the floor, the following recommendations can be used to select a starting KGS specification for your job.

**Concrete & Terrazzo Floors DRY:**

Very hard concrete or terrazzo floors are rare, but floors that are semi-polished or higher than 8k psi can be classified as Very Hard, BT100 is recommended. Dry grinding of these Very Hard Floors is technically difficult and grinding performance is limited. Most concrete & terrazzo floors are Hard to Medium and mildly abrasive, BT600 is recommended.

Concrete & terrazzo floors can be quite strong, relatively high toughness, but may contain Very Abrasive additives, BT800 or BT900 are recommended.

**KGS BT Diamond Segment Sizes**

- 24 x 10 x 12mm use for very hard floors, coating removal or small machines. (less than 100 kgs)
- 40 x 10 x 12mm use for normal floors, bigger jobs and larger machines.
- 1 segment for more aggressive grinding
- 2 segments for longer life

**KGS BT Grit Sizes Available**

```
<table>
<thead>
<tr>
<th>Gold</th>
<th>Grey</th>
<th>Orange</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>30</td>
<td>80</td>
<td>120</td>
</tr>
</tbody>
</table>
```

**General Grinding Recommendations for Planetary Grinders & Heavy Equipment**

**Machines:**
1) Best results with machines more than 150 kgs.
2) Use slow to medium rpm.
3) Use Vac and suitable extraction for all grinding steps.

**Methods**
1) Initial walking speed 1-2 meters per minute.
2) Walking speed can increase after the first pass.
3) Repair small cracks & holes with a high quality grout or filler.
4) Minimum 2 times over the floor with each grit, 30 grit, 80 grit, 120 grit.
5) More times over the floor with 30 grit to expose more aggregate or level surface.
6) Clean floor thoroughly after each grit.
7) Densify floor with a high quality densifier.
8) Select gloss level required and continue with KGS SpeedTec™ floor polishing solutions.
9) Apply high quality guard product designed for diamond polishing.

"All dry grinding operations generate dust. Please respect all local regulations for exposure limits and proper ventilation."