SMP micron diamond powder
SmartMicron diamond, standard size range

SMP SmartMicron diamond powder is made of modified synthetic diamond. SmartMicron diamond products deliver outstanding performance in lapping processes of superhard materials such as sapphire, ceramics and hard metals. Compared to conventional diamond powders, SmartMicron diamond powder delivers typically 10 – 20 % higher material removal rates (MRR) at equivalent values of surface roughness.

Structured particle surface  The micro-structured, rough particle surface maximizes the material removal rate due to the numerous contact points provided between diamond particles and the work piece.

Standard size range  The standard size range makes this product suitable for applications with a focus on economics. The controlled upper limit ensures a uniform, scratch-free surface quality.

Best performance  For best performance, we recommend to use SmartMicron products incorporated in our state-of-the-art diamond slurry formulations. The product range includes oil based and water soluble slurry formulations.

Applications  SMP SmartMicron diamond powder is ideal for lapping applications requiring a high stock removal. Typical applications include lapping of sapphire, ceramics, tungsten carbide and hard metals.

Performance Index

7.6

Particle strength

7.0

Grading

6.6

Purity, min.

99%
Order example
SMP 3 micron
Quantity 2000 carats
Packing units 500 carats

Packing
Units of 100, 500, 1000, 5000 and 25000 carats. Unless specified, orders will be sent in bulk packing units.

Units
Carat (ct), 1 ct = 0.2 grams
Micrometer (μm, Micron)
1 Micrometer = 0.001 Millimeter

Orders
Tel +41 71 686 60 60
Fax +41 71 686 60 70
sales@microdiamant.com

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<table>
<thead>
<tr>
<th>Micron Size</th>
<th>Median D50</th>
<th>Median-Tolerance</th>
<th>Upper Limit [D99]</th>
</tr>
</thead>
<tbody>
<tr>
<td>μm</td>
<td>μm</td>
<td>μm</td>
<td>μm max.</td>
</tr>
<tr>
<td>SMP 3</td>
<td>(2 – 4)</td>
<td>3.10</td>
<td>2.82 – 3.38</td>
</tr>
<tr>
<td>SMP 4</td>
<td>(2 – 6)</td>
<td>4.20</td>
<td>3.82 – 4.58</td>
</tr>
<tr>
<td>SMP 5</td>
<td>(3 – 7)</td>
<td>5.30</td>
<td>4.82 – 5.78</td>
</tr>
<tr>
<td>SMP 6</td>
<td>(4 – 8)</td>
<td>6.30</td>
<td>5.73 – 6.87</td>
</tr>
</tbody>
</table>

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