AMPERIT® 519

**Chemical Formula**  
WC-Co 88-12

**Chemical Name**  
Tungsten Carbide - Cobalt 88-12

**Description of Product**  
Agglomerated, Sintered

**Grades Available**

<table>
<thead>
<tr>
<th>Product Designation</th>
<th>AMPERIT® 519.074</th>
<th>AMPERIT® 519.072</th>
<th>AMPERIT® 519.059</th>
</tr>
</thead>
<tbody>
<tr>
<td>45/15 µm</td>
<td>38/10 µm</td>
<td>30/ 5 µm</td>
<td></td>
</tr>
<tr>
<td>45/22 µm</td>
<td>106/53 µm</td>
<td>53/20 µm</td>
<td></td>
</tr>
</tbody>
</table>

**Chemical Characteristics**  
(Mass fraction in % [cg/g]; ppm [µg/g])

<table>
<thead>
<tr>
<th></th>
<th>AMPERIT® 519.074</th>
<th>AMPERIT® 519.072</th>
<th>AMPERIT® 519.059</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co</td>
<td>10.5 - 13.0 %</td>
<td>10.5 - 13.0 %</td>
<td>10.5 - 13.0 %</td>
</tr>
<tr>
<td>C</td>
<td>5.2 - 5.6 %</td>
<td>5.2 - 5.6 %</td>
<td>5.2 - 5.6 %</td>
</tr>
<tr>
<td>Fe</td>
<td>max. 0.20 %</td>
<td>max. 0.20 %</td>
<td>max. 0.20 %</td>
</tr>
<tr>
<td>W</td>
<td>balance</td>
<td>balance</td>
<td>balance</td>
</tr>
</tbody>
</table>

**Physical Characteristics**

<table>
<thead>
<tr>
<th>Particle Size Distribution</th>
<th>AMPERIT® 519.074</th>
<th>AMPERIT® 519.072</th>
<th>AMPERIT® 519.059</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 88 µm</td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
</tr>
<tr>
<td>- 62 µm</td>
<td>99 %</td>
<td>99 %</td>
<td>100 %</td>
</tr>
<tr>
<td>- 44 µm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D 90 %</td>
<td>48 - 58 µm</td>
<td>38 - 46 µm</td>
<td>25 - 33 µm</td>
</tr>
<tr>
<td>D 50 %</td>
<td>29 - 37 µm</td>
<td>25 - 30 µm</td>
<td>15 - 21 µm</td>
</tr>
<tr>
<td>D 10 %</td>
<td>18 - 22 µm</td>
<td>14 - 18 µm</td>
<td>9 - 13 µm</td>
</tr>
<tr>
<td>Apparent Density</td>
<td>4.7 - 5.2 g/cm³</td>
<td>4.7 - 5.2 g/cm³</td>
<td>4.7 - 5.2 g/cm³</td>
</tr>
</tbody>
</table>

1) MICROTRAC by Laser Light Diffraction per ASTM C 1070, 2) HALL FLOWMETER FUNNEL per ASTM B 212, 3) CARNEY FUNNEL per ASTM B 417.
Chemical Characteristics
(Mass fraction in % [cg/g]; ppm [µg/g])

519.001

Co  11.0 - 13.0 %
C   5.0 - 6.0 %
Fe  max.  2.0 %
W   balance

Physical Characteristics

1) MICROTRAC by Laser Light Diffraction per ASTM C 1070.

Particle Size Distribution 519.001

+  63 µm  0.0 %
+  53 -63 µm  0.1 %
+  45 -53 µm  4.0 %
+  36 -45 µm  20.0 - 40.0 %
+  20 -36 µm  50.0 - 70.0 %
-  20 µm    15.0 %

Apparent Density report g/cm³
Flowrate (Hall) report sec/50g

Chemical Characteristics
(Mass fraction in % [cg/g]; ppm [µg/g])

519.081

Co  11.0  13.0 %
C   5.0 - 6.0 %
Fe  max.  2.0 %
W   balance

Physical Characteristics

1) MICROTRAC by Laser Light Diffraction per ASTM C 1070.

Particle Size Distribution 519.081

+  150 µm  0.0 %
+  125 -150 µm  0.5 %
+  106 -125 µm  5.0 %
+  71 -106 µm  30.0 - 60.0 %
+  63  -71 µm report %
+  53  -63 µm report %
+  45  -53 µm report %
+  36  -45 µm  3.5 %
-   36 µm    0.5 %

Apparent Density report g/cm³
Flowrate (Hall) report sec/50g
Chemical Characteristics
(Mass fraction in % [cg/g]; ppm [µg/g])

519.088

Co    11.0 13.0  %
C   5.0 - 6.0  %
Fe   max.  2.0  %
W   balance

Physical Characteristics

Particle Size Distribution 519.088

+ 71 µm  0.0  %
+ 63 -71 µm  1.0  %
+ 53 -63 µm  5.0  %
+ 45 -53 µm report  %
+ 36 -45 µm report  %
+ 20 -36 µm 20.0 - 55.0  %
- 20 µm  4.0  %

Apparent Density report  g/cm³
Flowrate (Hall) report  sec/50g

SEM pictures

1) MICROTRAC by Laser Light Diffraction per ASTM C 1070, 4) Secondary Electron Image (SEI).
Packaging

Standard Packaging
5 kg in one 2.5 l PE bottle, 6 bottles (30 kg) in one cardboard box.

Storage and Handling

Storage and handling are subject to the rules and regulations in the country of use.

Hazards identification in Advertising (REGULATION (EC) No 1272/2008)

- Carcinogenicity Category 1B
- Respiratory sensitisation Category 1
- Skin sensitisation Category 1
- Eye irritation Category 2
- Reproductive toxicity Category 2
- Short-term (acute) aquatic hazard, Category 1
- Long-term (chronic) aquatic hazard, Category 2

Documentation

An inspection document in accordance with EN 10204 is supplied with every shipment.

Remarks

Always mix well before using.

Höganäs Germany GmbH

Im Schleeke 78-91 Säckinger Straße 51
38642 Goslar/Germany 79725 Laufenburg/Germany

Phone +49 5321 751-53753

https://www.hoganas.com/en/contact/

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