POWERS FOR THERMAL SPRAYING

AMPERIT® 578

Chemical Formula: \( \text{Cr}_3\text{C}_2 \cdot \text{NiCr} \, 80-20 \)

Chemical Name: Chromium Carbide - Nickel-Chromium 80-20

Description of Product: Agglomerated, Sintered

Particle Sizes Available: Product Designation

AMPERIT® 578.074  45/15 \( \mu \text{m} \)
AMPERIT® 578.059  30/ 5 \( \mu \text{m} \)

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

<table>
<thead>
<tr>
<th>Element</th>
<th>578.074</th>
<th>578.059</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ni</td>
<td>14.0 - 16.0 %</td>
<td>14.0 - 16.0 %</td>
</tr>
<tr>
<td>C\text{tot}</td>
<td>9.0 - 10.5 %</td>
<td>9.0 - 10.5 %</td>
</tr>
<tr>
<td>Fe</td>
<td>max. 0.50 %</td>
<td>max. 0.50 %</td>
</tr>
<tr>
<td>O</td>
<td>max. 0.60 %</td>
<td>max. 0.60 %</td>
</tr>
<tr>
<td>Cr</td>
<td>balance</td>
<td>balance</td>
</tr>
</tbody>
</table>

Physical Characteristics

Particle Size Distribution\(^1\)

<table>
<thead>
<tr>
<th>Size Distribution</th>
<th>578.074</th>
<th>578.059</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 88 ( \mu \text{m} )</td>
<td>100 %</td>
<td>100 %</td>
</tr>
<tr>
<td>- 62 ( \mu \text{m} )</td>
<td>min. 99.5 %</td>
<td></td>
</tr>
<tr>
<td>D 90 %</td>
<td>50 - 60 ( \mu \text{m} )</td>
<td>27 - 37 ( \mu \text{m} )</td>
</tr>
<tr>
<td>D 50 %</td>
<td>31 - 39 ( \mu \text{m} )</td>
<td>17 - 23 ( \mu \text{m} )</td>
</tr>
<tr>
<td>D 10 %</td>
<td>18 - 22 ( \mu \text{m} )</td>
<td>9 - 13 ( \mu \text{m} )</td>
</tr>
</tbody>
</table>

Apparent Density

AMPERIT® 578.074  2.2 - 3.0 g/cm\(^3\) acc. ASTM B 417
AMPERIT® 578.059  2.4 - 3.2 g/cm\(^3\) acc. ASTM B 212

\(^1\) MICROTRAC by Laser Light Diffraction per ASTM C 1070.
SEM pictures

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 Article 48)
- Carcinogenicity Category 2
- Specific target organ toxicity - repeated exposure Category 1
- Skin sensitization Category 1

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

Remarks
Always mix well before using.

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2) Secondary Electron Image (SEI).