ADDITIVE MANUFACTURING POWDER
L718 AMPO / NI-BASED ALLOYS

Available Product Shapes

15 - 45 µm  45 - 90 µm

Product Description
The BÖHLER L718 AMPO is a hardenable nickel-base super alloy. This high heat-resistant material shows good strength properties at elevated temperatures up to 750 °C, as well as excellent creep resistance up to 700 °C. In addition, it shows excellent corrosion resistance and good printability. Essentially, the same properties can be achieved with printed components made from this powder as with bar material.

Properties

Particle size distribution 15 - 45 µm:
- Apparent density* 3.96 g/cm³
* Measurement of particle size distribution is based on ISO 13322-2 (Dynamic image analysis methods); Flowability and apparent density are based on DIN EN ISO 4490 resp. DIN EN ISO 3923-1.

D10[µm] 18 - 24
D50[µm] 29 - 35
D90[µm] 42 - 50
Apparent density* ≥ 3.4
*Measurement of particle size distribution according to ISO 13322-2 (Dynamic image analysis methods);

Achievable mechanical properties of printed part after heat treatment*:
- Tensile strength (Rm) 1400 ± 50 MPa
- Yield strength (Rp0.2) 1180 ± 50 MPa
- Elongation (%) 18 ± 3
- Hardness 46 ± 3 HRC
*Mechanical strength according to heat treatment AMS5663 RT

Particle size distribution 45 - 90 µm:
Details on request

Applications
- 3D Printing - direct metal deposition
- Automotive
- Comp. for Industrial Gas Compressors
- Oth. Automotive components (Turbochargers, Piston Rings, Sensors, etc.)
- 3D Printing - selective laser melting
- Automotive Racing
- CPI (inc. LNG, Urea)
- Other Aerospace Comps.
- Other Oil and Gas + CPI comps.
- Powder for additive manufacturing
- Aerospace
- Civil and mechanical engineering
- Oil & Gas
- Other Components
- Other Power Generation Components
- Unknown Components Application

Material designation
2.4668 SEL

voestalpine BÖHLER Edelstahl GmbH & Co KG
www.voestalpine.com/bohler-edelstahl
### Chemical composition

<table>
<thead>
<tr>
<th>C</th>
<th>Cr</th>
<th>Mo</th>
<th>Ni</th>
<th>Ti</th>
<th>Al</th>
<th>Nb</th>
<th>B</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.04</td>
<td>19.00</td>
<td>3.05</td>
<td>52.50</td>
<td>0.90</td>
<td>0.50</td>
<td>5.13</td>
<td>0.004</td>
<td>Rest</td>
</tr>
</tbody>
</table>

For more information see [www.voestalpine.com/bohler-edelstahl](http://www.voestalpine.com/bohler-edelstahl)