

# ADDITIVE MANUFACTURING POWDER

## L718 AMPO / NI-BASED ALLOYS

### Available Product Shapes

15 - 45 µm	45 - 90 µm
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### 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:

D10[µm]	18 - 24
D50[µm]	29 - 35
D90[µm]	42 - 50

Apparent density\*  $\geq 3.4 \text{ g/cm}^3$

\*Measurement of particle size distribution according to ISO 13322-2 (Dynamic image analysis methods);

Measurement of apparent density is based on ASTM B964 resp. DIN EN ISO 3923-1 and relates to our typical measured values

#### Achievable mechanical properties of printed part after heat treatment\*:

Tensile strength (Rm)	1400 ± 50 MPa
Yield strength (RP <sub>0.2</sub> )	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.)
- > Other Oil and Gas + CPI comps.
- > Unknown Components Application
- > 3D Printing - selective laser melting
- > Automotive Racing
- > CPI (inc. LNG, Urea)
- > Other Aerospace Comps.
- > Other Power Generation Components
- > Aerospace
- > Civil and mechanical engineering
- > Oil & Gas
- > Other Components
- > Powder for additive manufacturing

### Technical data

<b>Material designation</b>	
2.4668	SEL

**Chemical composition (wt. %)**

C	Cr	Mo	Ni	Ti	Al	Nb	B	Fe
0.04	19	3.05	52.5	0.9	0.5	5.13	0.004	Rest

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

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.

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