

# ADDITIVE MANUFACTURING POWDER

## L625 AMPO / NI-BASED ALLOYS

### Application Segments

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Additive Manufacturing Application

### Available Product Variants

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15 - 45 µm

45 - 90 µm

### Product Description

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BÖHLER L625 AMPO is a non-magnetic, corrosion and scale-resistant nickel-base alloy. High toughness and strength from the lowest temperatures up to 1000 °C. Good printability.

### Process Melting

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VIGA

### Applications

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- > 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.
- > 3D Printing - selective laser melting
- > Automotive Racing
- > CPI (incl. LNG, Urea)
- > Other Aerospace Comps.
- > Other Power Generation Components
- > Aerospace
- > Civil and mechanical engineering
- > Oil & Gas
- > Other Components
- > Powder for additive manufacturing

### Technical data

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| Material designation |              |
|----------------------|--------------|
| 2.4856               | SEL          |
| Alloy 625            | Market grade |
| N06625               | UNS          |
| NiCr22Mo9Nb          | EN           |

## Chemical composition (wt. %)

| C    | Cr   | Mo | Ni      | Co     | Ti  | Al  | Nb   | Fe     |
|------|------|----|---------|--------|-----|-----|------|--------|
| 0.05 | 21.5 | 9  | ≥ 58,00 | ≤ 1,00 | 0.2 | 0.2 | 3.65 | ≤ 5,00 |

## Powder Properties

### Particle Size Distribution 15-45µm

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

Apparent density\* | min. 3.7 g/cm<sup>3</sup>

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

## Mechanical Properties

### With according Heat Treatment

|   |                         |
|---|-------------------------|
| Tensile strength (Rm) (MPa   ksi)               | 800 to 900   117 to 131 |
| Yield strength (RP <sub>0.2</sub> ) (MPa   ksi) | 520 to 580   76 to 85   |
| Elongation (%)                                  | 35 to 45                |
| Hardness (HRC)                                  | 18 to 28                |

Mechanical strength according to heat treatment AMS5599

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.