

ADDITIVE MANUFACTURING POWDER

L625 AMPO / NI-BASED ALLOYS

Application Segments

Additive Manufacturing Application

Available Product Variants

15 - 45 µm

45 - 90 µm

Product Description

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

VIGA

Applications

- > 3D Printing - direct metal deposition
- > Components for Industrial Gas Compressors
- > Other Components
- > Powder for additive manufacturing
- > Exhaust System
- > MIM - Metal Injection Moulding
- > 3D Printing - selective laser melting
- > CPI (incl. LNG, Urea)
- > Other Oil and Gas + CPI components
- > EBM Electron Beam Melting
- > Turbo Chargers
- > Civil and mechanical engineering
- > Other Aerospace Components
- > Other Power Generation Components
- > Other Automotive Components (Sealing Rings, Sensors, Steering Systems)
- > BJT - Binder Jetting

Technical data

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

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/cm³

* 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) | 800 to 900 |
| Yield strength (RP _{0,2}) (MPa) | 520 to 580 |
| Elongation (%) | 35 to 45 |
| Hardness (HRC) | 18 to 28 |

Mechanical strength according to heat treatment AMS5599

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. 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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ONE STEP AHEAD.