ADDITIVE MANUFACTURING POWDER

L175 AMPO / CO-BASED ALLOYS

Application Segments

Additive Manufacturing Application

Available Product Variants

15 - 45 µm

45 - 90 µm

Product Description

L175PA is characterized by a high tensile strength combined with very good ductility. Due to its biocompatibility and corrosion resistance, it is often used in orthopedic surgery as a joint replacement or as part of various implants, as well as in dental technology.

Properties

- Corrosion resistance
- high Elasticity
- high Hardness

Process Melting

VIGA

Applications

- 3D Printing - selective laser melting
- Medical
- Powder for additive manufacturing
- Other Components
- Aerospace
- 3D Printing - direct metal deposition

Technical data

Material designation	
F75	Market grade
2.4979	SEL
Co28Cr6Mo	EN
R30075	UNS

Chemical composition (wt. %)

C	Si	Mn	Cr	Mo	Ni	Co	Fe
≤ 0.35	≤ 1.00	≤ 1.00	28.5	6	≤ 0.50	64	≤ 0.75

Powder Properties

Particle Size Distribution 15-45µm*

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

* Measurement of particle size distribution is based on ISO 13322-2 (Dynamic image analysis methods);

Mechanical Properties

As Printed

Tensile strength (Rm) (MPa)	1,150 to 1,250
Yield strength ($RP_{0,2}$) (MPa)	730 to 830
Elongation (%)	19 to 21
Hardness (HRc)	34 to 36
Impact Toughness (ISO-V) (J)	25 to 27

We expressly point out that the values given are only guide values. The mechanical properties highly depends on the pressure parameters or heat treatment.

With according Heat Treatment

Tensile strength (Rm) (MPa)	1,150 to 1,250
Yield strength ($RP_{0,2}$) (MPa)	600 to 700
Elongation (%)	32 to 38
Impact Toughness (ISO-V) (J)	82 to 90

Heat treatment

Temperature	1,150 °C	for 6h

voestalpine BÖHLER Edelstahl GmbH & Co KG
Mariazeller Straße 25
8605 Kapfenberg, AT
T. +43/50304/20-0
E. info@bohler-edelstahl.at
https://www.voestalpine.com/bohler-edelstahl/de/

voestalpine
ONE STEP AHEAD.