



BÖHLER W722 AMPO

GAS ATOMIZED POWDER FOR ADDITIVE MANUFACTURING

Additive manufacturing is the revolution in manufacturing technology! Especially in this promising segment, we as voestalpine BÖHLER Edelstahl can build on our extensive materials experience and expertise in the field of powder metallurgy.

Why to buy at BÖHLER?

Customized alloys depending on your requirements. We atomize BÖHLER standard grades, theoretical selection of 250 grades.

BÖHLER Edelstahl leverages the metallurgical knowledge and manufacturing options of a special steel producer for this new technology.

Powder is produced on latest atomization techniques and tested in-house. Vacuum induction melting and atomization under inert gas ensure highest product quality.

Depending on the steel grade and customer requirements, rawmaterials molten under vacuum or remolten can be used. This ensures the highest quality standards and minimizes undesired impurities.

Depending on the requirements of the specific AM process used, we can provide the appropriate particle fraction in a range from 15-150µm.

Safety Recommendations

See the SDS (Safety Data Sheet) in the version localized for the country where the material will be used. SDS are available from the voestalpine BÖHLER Edelstahl web site at www.voestalpine.com/boehler-edelstahl (AMPO - Safety Data Sheets).

BÖHLER W722 DIN 1.2709 / MS1 / ~ Marage 300
AMPO

Chemical Composition [wt. %]	Element	C	Si	Mn	P	S	Cr	Mo	Ni	Ti	Co
min	-	-	-	-	-	-	-	4.5	17	0.8	8.5
max	0.03	0.1	0.15	0.01	0.01	0.25	5.2	19	1.2	10.0	

Achievable mechanical properties of printed part after heat treatment

Tensile strength (Rm)	Yield strength (Rp0,2)	Elongation (%)	Hardness	Ductility (ISO V)
1990 - 2150 MPa	1890 - 2120 MPa	4.0 - 6.5	50 - 54 HRc	6 - 14 J

Particle size distribution*	15 - 45 µm (e.g. laser powder bed fusion)		45 - 150 µm (e.g. direct laser deposition)	
	Flowability* [s/50g]	Apparent density* [g/cm³]	Flowability* [s/50g]	Apparent density* [g/cm³]
	<18	3.90	<22	3.30

* 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.

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