

# BÖHLER W722 AMPO



## DATA SHEET Gas Atomized Powder for Additive Manufacturing

Additive manufacturing is **the revolution in manufacturing technology!** Especially in this promising segment, we as **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.**

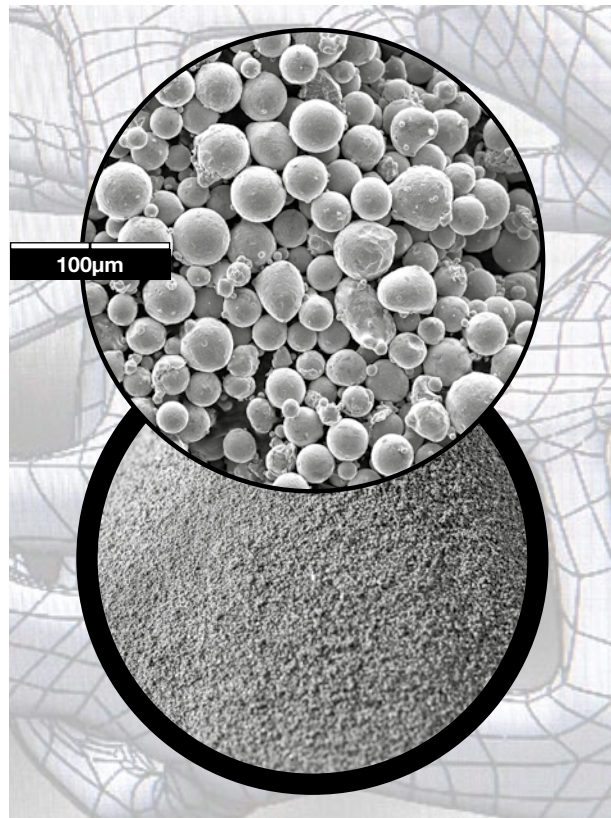
Depending on the steel grade and customer requirements, rawmaterials **molten** under **vacuum or remolten** can be used. This ensures the highest **quality standards** and **minimizes undesired impurities.**

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 **BÖHLER Edelstahl** web site at [www.boehler-edelstahl.com](http://www.boehler-edelstahl.com) (AMPO - Safety Data Sheets).

### BÖHLER W722 AMPO Gas Atomized Powder - Morphology



### BÖHLER W722 AMPO DIN 1.2709 / MS1 / ~ Marage 300

#### 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* [µm]	Flowability* [s]	Apparent density* [g/cm³]
15 - 45 (e.g. laser powder bed fusion)	< 18	3,90
45 - 150 (e.g. direct laser deposition)	< 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.