

ADDITIVE MANUFACTURING POWDER

W360 AMPO / FE-BASED ALLOYS

Application Segments

Additive Manufacturing Application

Dostupne varijante proizvoda

15 - 45 µm

45 - 90 µm

Opis proizvoda

The BÖHLER W360 AMPO is the powder equivalent of the W360 ISOBLOC. Due to its chemical composition, the material belongs to the product group of hot-work tool steels. After hardening and tempering, it can achieve a hardness of up to 57 HRC with very good toughness properties. Its high temperature wear resistance, heat resistance and toughness characterizes the material. Applications: Printed components with conformal cooling for die casting applications, wear protection layers and repair work in mold making using laser cladding.

Put taljenja

VIGA

Korištenje

- > 3D Printing - direct metal deposition
- > Istiskivanje
- > Gravitacijsko / niskotlačno lijevanje
- > Powder for additive manufacturing
- > 3D Printing - selective laser melting
- > Kovanje (vruće / poluvruće)
- > Lijevanje ubrizgavanjem
- > Tlačno otvrdnjavanje / vruće oblikovanje
- > Primjene kovanja
- > Visokotlačno lijevanje
- > Drugi sklopovi

Technički podaci

Oznaka materijala	
BÖHLER patent	Market grade

Kemijski sastav

C	Si	Mn	Cr	Mo	V
0,5	0,2	0,25	4,5	3	0,55

Svojstva praha

Raspodjela veličine čestica *

Tipične vrijednosti	D10	D50	D90
[μm]	18-24	29-35	42-50

* Measurement of particle size distribution according to ISO 13322-2 (Dynamic image analysis methods);

Apparent density** | min. 3,6 g/cm³

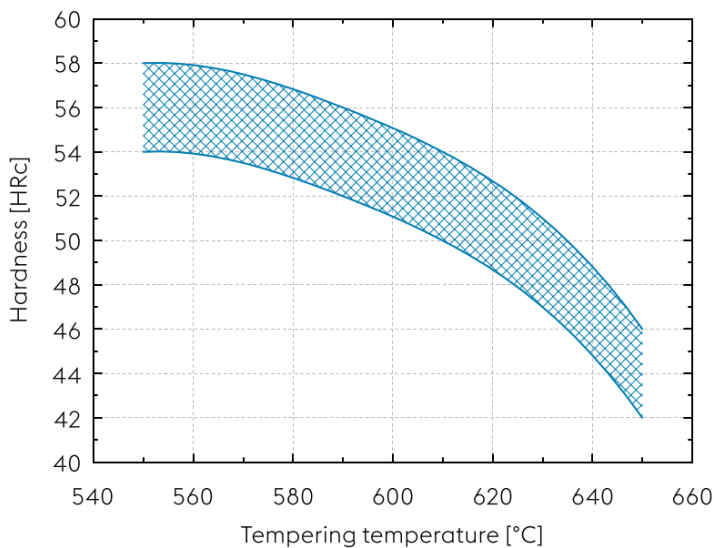
** Measurement of apparent density is based on ASTM B964 resp. DIN EN ISO 3923-1 and relates to our typical measured values

Mehanička svojstva

Uz odgovarajuću toplinsku obradu

Vlačna čvrstoća (Rm) (MPa)	1.970 do 2.010
Snaga prinosa (RP _{0,2}) (MPa)	1.500 do 1.670
Naprezanje (%)	7 do 8
Tvrdoća (HRC)	55 do 57
Žilavost (ISO-V) (J)	8 do 14

Tempering chart



Stress relieving: 690°C in a neutral atmosphere
After through-heating, soak for 1 to 2 hours
Cool slowly in furnace

Hardening: 1050°C
Oil or vacuum furnace with gas quenching
Holding time at hardening temperature after through-heating: 15 to 20 minutes
Achievable hardness: see tempering chart

Tempering (according to tempering chart): at least twice. Heat slowly to tempering temperature immediately after hardening. Holding time at tempering temperature 1.5 hours per temper. A third temper is advantageous.

Achievable mechanical properties are strongly dependent on the printing process.

Informacije u ovom prospektu nisu obvezujuće i ne smatraju se prihvaćenima; umjesto toga, oni su samo za opće informacije. Te su informacije obvezujuće samo ako su izričito postavljene kao uvjet u ugovoru sklopljenom s nama. Mjerni podaci su laboratorijske vrijednosti i mogu se razlikovati od praktičnih analiza. U proizvodnji naših proizvoda ne koriste se tvari štetne za zdravlje ili ozon.

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ONE STEP AHEAD.