

Cobaloy[®]

cobalt substitute powders



K-mat[®]
the key to success



**METAL
POWDERS**



**BONDING
SYSTEMS**



**BRAZING
+ FLUX**



DIAMOND



SEMINARS



SERVICE

K-mat GmbH has been established by Thorsteñ Kiehnbast and Stefan Bülk, who each have more than 30 years experience in the field of the diamond tool industry. They both worked previously for a well known metal powder and diamond tool producer.

Professionally developed cost effective metal powders supplied to leading Diamond Tool Companies to produce application orientated tools are the key to success.

New Atomizing technology, mechanical - and micro alloying are the key technologies of the new „Cobaloy-family“ from K-mat GmbH.

Your key to success

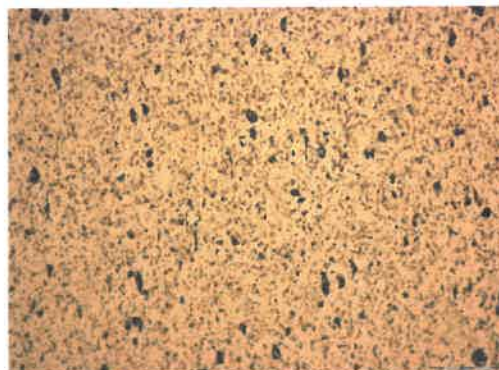




Cobaloy[®] 100

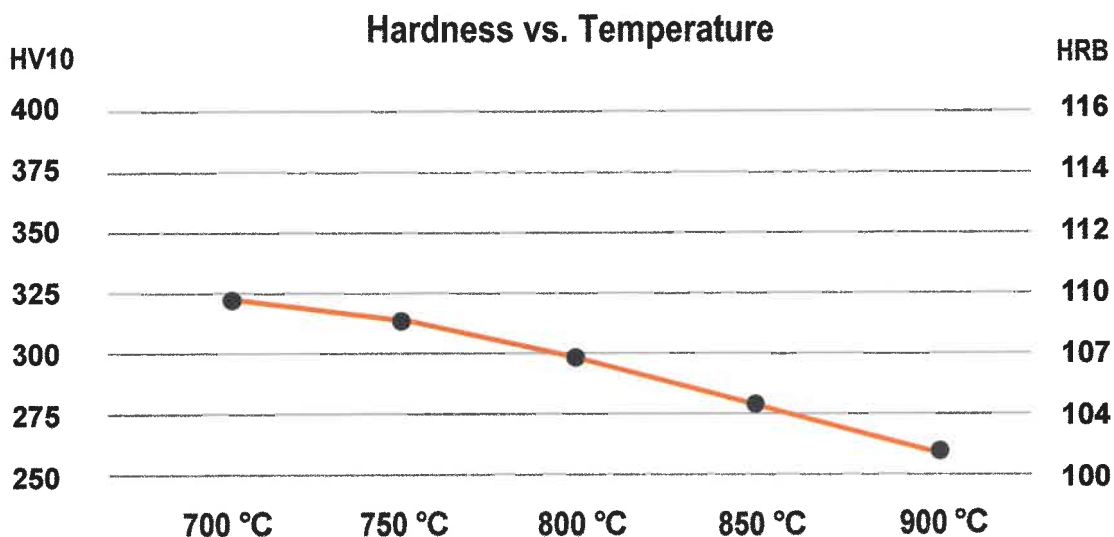
Cobalt Substitute Alloy

Main Elements	[%]	
Co	23	
Cu	53	
Fe	24	
Theoretic Density	[g/cm ³]	8,62
Apparent Density	[g/cm ³]	2,50
Particle Size d50	[µm]	13,00
Oxygen Content	[%]	0,25



Cobaloy100 + 20% Fe, edged 100-X

Hardness: HB = 0,95 HV



Tolerance: +/- 10 HV10

Sintering Data (recommended):

Cold Pressure	[kN/cm ²]	35 - 60
Hot Pressure (pre)	[kN/cm ²]	1,5 - 2,0
Hot Pressure (main)	[kN/cm ²]	3,0 - 4,0
Pressure Change Temperature	[°C]	680
Sintering Temperature	[°C]	780
Sintering Time	[min]	3
Cooling Time	[min]	3

Powder granulation on request





Cobaloy® 300

Cobalt Substitute Alloy

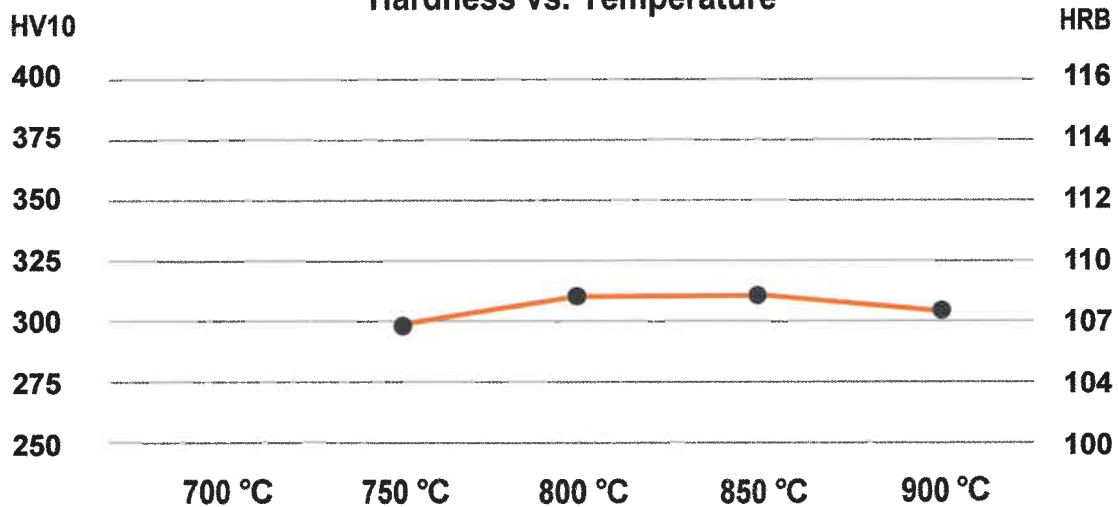
Main Elements	[%]	
Co	23	
Cu	14	
Fe	63	
Theoretic Density	[g/cm³]	8,21
Apparent Density	[g/cm³]	2,50
Particle Size d50	[µm]	13,00
Oxygen Content	[%]	0,25



Cobaloy300 + 20% Fe, edged 100-X

Hardness: HB = 0,95 HV

Hardness vs. Temperature



Tolerance: +/- 10 HV10

Sintering Data (recommended):

Cold Pressure	[kN/cm²]	35 - 60
Hot Pressure (pre)	[kN/cm²]	1,5 - 2,0
Hot Pressure (main)	[kN/cm²]	3,0 - 4,0
Pressure Change Temperature	[°C]	700
Sintering Temperature	[°C]	800
Sintering Time	[min]	3
Cooling Time	[min]	3

Powder granulation on request

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K-mat®

the key to success

*Ihr Schlüssel
zum
Erfolg*



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