

L-PBF PROCESS

Layer thickness	30 µm
Laser power	200 W
Theoretical build-up rate	6,9 cm ³ /h

POWDER MATERIAL

Cobalt chromium molybdenum is a non-magnetic alloy with high strength, excellent corrosion and wear resistance and extraordinary biocompatibility. Typical applications for CoCrMo are orthopedic implants, dental implants, and gas turbine components.

PHYSICAL PROPERTIES

Particle Size	15 µm – 45 µm
Density	8,3 g/cm ³
Thermal conductivity	13 W/mK
Melting range	1350 °C – 1430 °C
Thermal expansion	11 x 10 ⁻⁶ K ⁻¹ – 13 x 10 ⁻⁶ K ⁻¹

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 Local Court Aachen: HRB18970

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 Sparkasse Aachen
 IBAN: DE66 3905 0000 1070 1746 91 | BIC: AACSD33XXX

US-Dollar Account: 107877301 | Routing: 39070024
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CHEMICAL COMPOSITION

Element -	Mass fraction
Co	Balance
Cr	28%
Mo	6%
Ni	<0,04%
C	<0,01%

MECHANICAL DATA

As Built		
Tensile Strength	R_m	1276 MPa
Yield strength	R_{p0,2}	821 MPa
Elongation at break	A	17%
Rockwell hardness		38 HRB

All values are subject to natural volatilities depending on applied powder material, process parameters and surrounding conditions.

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