# **CoCrMo alloy** for ProX<sup>™</sup> 100, 200 and 300 Direct Metal Printers

Metal powder for additive manufacturing of highly corrosion-resistant industrial parts that require high temperature resistance

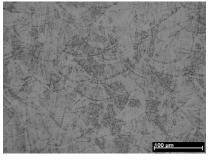


## Technical Data

#### **Chemical Composition**

Ni-free alloy.<sup>1</sup>

Element	% of weight		
Со	Balance		
Cr	28.0 - 30.0		
Мо	5.0 - 6.0		
Si	0.0 - 1.0		
Mn	0.0 - 1.0		
Fe	0.0 - 0.50		
С	0.0 - 0.02		



CoCrMo part microstructure after recommended heat treatment

### Applications

- Turbine and engine components
- Design and watchmaking products
- Parts with thin walls or fine features
- Mechanical components needing wear and corrosion resistance

### Features

- High strength
- Excellent wear resistance
- Good elasticity
- Good corrosion resistance
- High temperature resistance

#### **Mechanical Properties**<sup>2</sup>

	Condition	As-built <sup>3</sup>	After post heat treatment⁴
Ultimate Tensile Strength, MPa	ASTM E8	$1200 \pm 100$	1260 ± 100
Yield Strength, MPa	ASTM E8	850 ± 100	900 ± 100
Elongation at break, %	ASTM E8	10 ± 2	15 ± 2
Hardness		na	500 ± 20 HV5
Density		approx. 100%	

<sup>1</sup> This chemical composition is suitable for biomedical applications

<sup>2</sup> Parts built on a ProX 200 Direct Metal Production Printer

- <sup>3</sup> As-built refers to the state of components built on the ProX 200 Direct Metal Printer before any post processing except removal from the build platform
- <sup>4</sup> Recommended post heat treatment at 800 °C for 1h (exact time dependent on part volume)



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