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Data sheet: laser melting material cobalt-chrome (CoCr ASTM F75)

Powder composition / percent by mass													
C	**Si**	**Ni**	**Fe**	**P**	**Ti**	**B**	**Mn**	**Cr**	**Mo**	**S**	**Al**	**W**	**Co**
<0.16	<1.0	<0.50	<0.75	<0.020	<0.10	<0.010	<1.0	27.0 to 30.0	5.0 to 7.0	<0.010	<0.10	<0.20	Balance

Material Properties

High toughness
High strength
Excellent bio-compatibility
Good corrosion resistance

Applications

Medical implants
High temperature
High performance engineering

Mechanical data	**As-built[a]**		**Test / ISO standard where applicable**
	Minimum	Maximum	
Yield strength	700 MPa	800 MPa	BS EN ISO 6892-1:2009
Ultimate tensile strength	900 MPa	1000 MPa	BS EN ISO 6892-1:2009
Hardness (HRC)	-	-	-
Elongation	7%	10%	BS EN ISO 6892-1:2009
Thermal conductivity at 20 ºC	-	-	-
Surface roughness R_a X, Y	4 µm	8 µm	JIS B 0601-2001 (ISO 97)
Surface roughness R_a Z	8 µm	12 µm	JIS B 0601-2001 (ISO 97)

[a] 30 µm layers on AM250 and stress-relieved under argon at 450 ºC for 45 min then 750 ºC for 60 min.

Values quoted are typical values for the AM process.
All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications.
No guarantees of machine performance are expressed or implied by these data and Renishaw reserves the right to update them at any time.

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