Technical Data Sheet

CL 31AL Material

For the Metal Additive Manufacturing process

camodels
precision prototyping

Features, benefits and applications

- Manageable post processing with superior malleability and machining properties
- Excellent corrosion resistance
- Good thermal conductivity

Machines

- Available on Concept Laser M2 machine

Physical and Chemical Properties *	
Material Density	2.61 g/cm³
Chemical Composition (indicative value %)	
Element	
Al	Bal.
Si	9.00 -11.00
Fe	0 – 0.55
Cu	0 – 0.10
Mn	0 – 0.45
Mg	0.20 – 0.45
Zn	0 – 0.10
Ti	0 – 0.15
Ni	0 – 0.05
Pb	0 – 0.05
Sn	0 – 0.05
C	0 – 0.05

Technical Data After Recommended Heat Treatment *	
Yield Point R_e 1*	170-220 N/mm²
Tensile Strength R_m 1*	310-325 N/mm²
Elongation A 1*	2-3%
Young's Modulus 2*	Approx. 75 · 10³ N/mm²
Thermal Conductivity λ² 2*	120-180 W/mK
Coefficient of Thermal Expansion (at rt) 2*	20 · 10^{-6} K^{-1}

* According to DIN EN 1706 AlSi10Mg(b).
1* Tensile test according to DIN 50125 at 20°C.
2* Specification according to the material manufacturer's data sheet.

Got a question? Need more technical data?
Call us: +44(0) 1786 464 434
Email us: sales@camodels.co.uk
www.camodels.co.uk