

Demonstrator Fact-Sheet

Mo'ai artistic reference design

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FENIX steel alloy is obtained with Mechanomade® process, using primary and recycled metals. The Alloy has been developed to have optimal sinter-ability and mechanical properties.

The Mo'ai custom design allows to evaluate the results of printing on different curvatures. With FENIX feedstock it has been possible to obtain with even steep overhangs or horizontal planes that does not without the need of support material. If supported by alumina sand during sintering, the features are retained in the final metal component. The metal sintered part can be polished, machined, grinded and plated.



Characteristic Figures

		Value
Archimedean density	g/cm ³	6.8
Porosity*	%	13%
Hardness	HRC	48

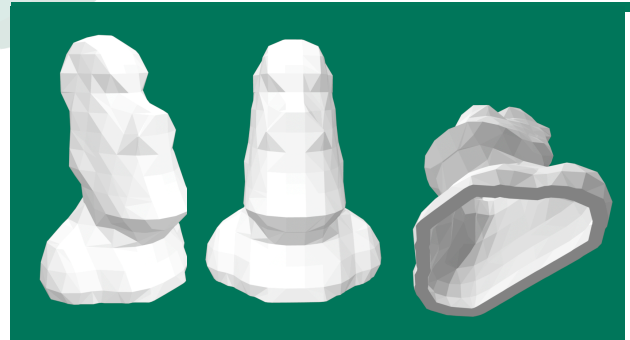
*porosity is determined by the STL geometry and toolpath strategy

Description of its use

The Mo'ai head is a freely available STL used to evaluate the printing capabilities of the printer or the filament, or the strategy used.

The Mo'hai has been chosen also to evaluate the possibility to print without supports, i.e. the top part of the head.

Original STL



Mo'ai head, printed, debinded and sintered.

Debinding

Apolar solvent debinding, 1h at 90° or 1day at room temperature

Sintering

Full metal sintering at 950°C, in inert or reducing atmosphere supported by alumina sand

Printers

Tested with:
Raise3D N2 & Pro2
Zortrax M200 & M300
Craftbot Plus PRO
Creality CR10 MAX
Ultimaker 3



The above data represent typical, average values obtained in accordance with accepted test methods. These data, however, as well properties of any product sample do not imply any legally binding assurance or guarantee. We recommend all users to determine the suitability of the products for their intended uses or for a specific purpose. These results have been obtained thanks to the H2020 Innovation Action – FENIX - this project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N. 760792

More information can be found at :



www.fenix-project.eu



marketplace.fenix-apps.eu