Zetamix Stainless steel datasheet

PRODUCT DESCRIPTION

Zetamix Stainless Steel is a 316L stainless steel filament used for 3D printing. The binders mixed with stainless steel powder enables to have a flexible and resistant filament usable with classical FFF printers (Fused Filament Fabrication). Printed parts need to be debinded and sintered.

Diameter available: 1,75mm and 2,85mm
Postprocess : debinding and sintering

IDENTIFICATION

Trade name	Zetamix Stainless steel
Chemical name of raw material	316 L stainless steel
Binding proportion (vol) %	45%
Binding proportion (mass) %	9%
Zirconia proportion (vol) %	55%
Zirconia proportion (mass) %	91%

Nanoe 6 rue des frênes,
91160 Ballainvilliers
France

E-mail: contact@nanoe.com
Phone: +33 9 81 98 33 64 Fax:
+33 9 81 70 75 52

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PRINTING AND SINTERING RECOMMANDATIONS

Printing temperature	170°C
No solvant debinding	-
Sintering temprature	1300°C, under hydrogenated argon
Shrinkage	10%
Density	90-95%

TYPICAL PROPERTIES OF THE FILAMENT

Specific Gravity [g/cm1]	4,5
MFR [g/10(min])	250
MVR [cm3/10(min])	56
Moisture Absorption 24 hours [%]	<0,05%
Moisture Absorption , 7 days [%]	<0,1%
Shor D	35

MECHANICAL PROPERTIES ON FINAL PART

Strength limit ➔ 100 MPa
Breaking strength➔ 300 – 600MPa

Disclaimer : The results presented above are for information and do not constitute a legally binding Material Safety Data sheet (MSDS). Moreover, values are significally dependent on printing and debinding parametters , operators experience and surrounding conditions. Any descriptions, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product.

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