



## Zetamix Alumina datasheet

### PRODUCT DESCRIPTION

**Zetamix Alumina** is an alumina filament used for 3D printing. The binders mixed with alumina 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: 1.75 mm and 2.85 mm

Post-process: debinding and sintering

### IDENTIFICATION

Trade name	Zetamix Alumina
Chemical symbol	$\text{Al}_2\text{O}_3$
Binder system proportion $_{\text{vol}}\%$	48
Binder system proportion $_{\text{wt}}\%$	17
Alumina proportion $_{\text{vol}}\%$	52
Alumina proportion $_{\text{wt}}\%$	83

## PRINTING AND SINTERING RECOMMANDATION

Printing temperature	150°C
Solvent debinding	Acetone
Sintering temprature	1500-1550 under air
Shrinkage	19,7%
Density	98-99%

## TYPICAL PROPERTIES OF FILAMENTS

Specific Gravity [g.cm <sup>-3</sup> ]	2,5
Melt Flow Rate [g/10(min)]	200
Melt Volume Rate [cm <sup>3</sup> /10(min)]	80
Moisture Absorption 24 hours [%]	<0,1%
Moisture Absorption , 7 days [%]	<0,3%
Shore D hardness	40

## MECHANICAL PROPERTIES ON FINAL PART

Hardness (Hv10) GPa → 19

Bending strength → 150 to 300 MPa

Disclaimer : The results presented above are for information and do not constitute a legally binding Material Safety Data sheet (MSDS). Moreover, values are significantly dependent on printing setting, debinding parameters, 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.