



## Zetamix White Zirconia datasheet

### PRODUCT DESCRIPTION

**Zetamix White Zirconia** is a 3%<sub>mol</sub> stabilized zirconia filament used for 3D printing. The binders mixed with zirconia 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 White Zirconia
Chemical symbol	$ZrO_2 \cdot Y_2O_3$
Binder system proportion <sub>vol</sub> %	50
Binder system proportion <sub>wt</sub> %	14
Zirconia proportion <sub>vol</sub> %	50
Zirconia proportion <sub>wt</sub> %	86

## PRINTING AND SINTERING RECOMMANDATIONS

Printing temperature	180°C
Solvent debinding	Acetone
Sintering temperature	1475°C under air
Shrinkage	21,5% (x, y and z)
Density	98-99%

## TYPICAL PROPERTIES OF THE FILAMENT

Specific Gravity [g.cm <sup>-3</sup> ]	3,5
Melt Flow Rate [g/10(min)]	50
Melt Volume Rate [cm <sup>3</sup> /10(min)]	14
Moisture Absorption 24 hours [%]	<0,1%
Moisture Absorption 7 days [%]	<0,3%
Shore D hardness	45

## MECHANICAL PROPERTIES ON FINAL PART

Hardness (Hv10) GPa → 10

Bending strength → 400 à 1000 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 and 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.