



## Zetamix Silicon Carbide Datasheet

### PRODUCT DESCRIPTION

**SiC Zetamix filament** is a filament used for 3D printing. The binders mixed with SiC 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 Silicon Carbide
Chemical name of raw material	SiC
Binding proportion (vol) %	48
Binding proportion (mass) %	22
SiC proportion (vol) %	52
SiC proportion (mass) %	78

## PRINTING AND SINTERING RECOMMANDATIONS

Printing temperature	120°C
Debinding	Aceton
Sintering temperature	2200°C under partial vacuum (Ar 90 mb)
Shrinkage	16.8% ( x and y ) ; 22,6% (z)
Density	98-99%

## TYPICAL PROPERTIES OF THE FILAMENT

Mass fluidity index[g/10(min)]	16
Volumetric fluidity index [cm <sup>3</sup> /10(min)]	5
Moisture Absorption 24 hours [%]	<0,1%
Moisture Absorption , 7 days [%]	<0,3%
Shor D	56

## MECHANICAL PROPERTIES ON FINAL PART

Hardness (Hv10) GPa → 25

Bending strength → 400 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 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.