



## 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

Postprocess : chemical 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	120-130°C
Debinding	Acetone
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

Specific Gravity [g.cm <sup>-3</sup> ]	2.20
Melt Flow Index [g/10(min)] (@170°C, 5kg, half-die)	7
Melt Volume Rate [cm <sup>3</sup> /10(min)]	3.2

## 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 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.