



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

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|-------------------------------|-------------------------|
| 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

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|-----------------------|--|
| Printing temperature | 130-180°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

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