



# Bilby 3D

## **MATERIAL DATA SAFETY SHEET**

Issued in Australia by Bilby 3D Pty Ltd.

The attached Material Data Safety Sheet has been prepared by the manufacturer outside Australia.

In accordance with Australia WHS regulations the following Australian contact details apply

### **Section 1: AUSTRALIAN COMPANY DETAILS**

In Australia the product is imported and distributed by:  
Bilby 3D Pty Ltd

Mailing Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Head Office Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Contact Phone: 1800 847 333

### **Section 2: AUSTRALIAN EMERGENCY CONTACT**

#### **Emergency Contact**

In the event of an emergency please contact:

Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

### **Section 3: AUSTRALIAN ISSUE DATA**

**Date of Issue** : 1 March 2020



## 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 <sub>2</sub> · Y <sub>2</sub> O <sub>3</sub>
Binder system proportion vol%	50
Binder system proportion wt%	14
Zirconia proportion vol%	50
Zirconia proportion wt%	86

## PRINTING AND SINTERING RECOMMANDATION

Printing temperature	170°C
Solvent debinding	Acetone
Sintering temperature	1400°C under air
Shrinkage	23%
Density	98-99%

## TYPICAL PROPERTIES OF FILAMENTS

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 → 600 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 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.