



# 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:

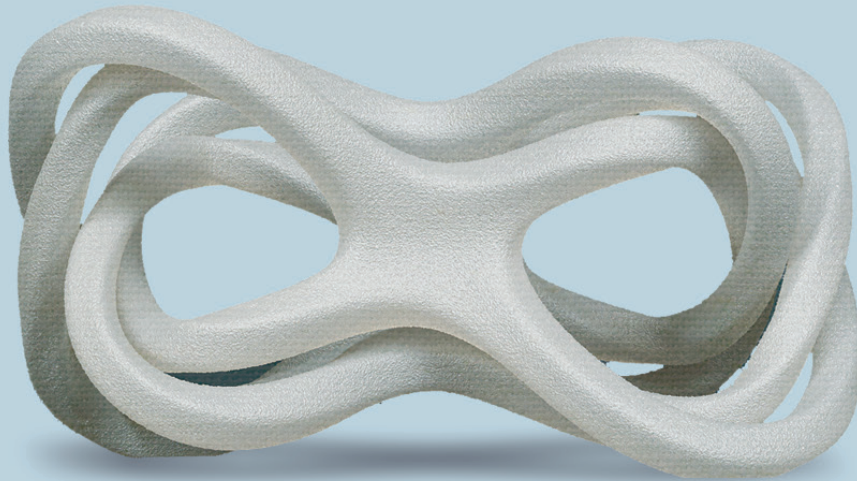
Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

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

**Date of Issue** : 1 March 2020



## PETG CARBON KIMYA



**PETG CARBON** has an excellent tensile modulus. PETG is reinforced with carbon fibers

| NO DELAMINATION | HIGH RIGIDITY

| REINFORCMENT | POST-PRINTING PROCESSES POSSIBLE

### FILAMENT PROPERTIES

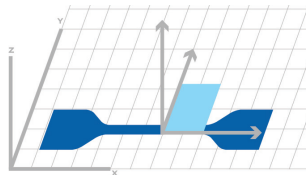
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183	g/cm <sup>3</sup>	1.317
Humidity rate	INS-6711	ppm	< 10,000
MFI (@225°C – 2.16 kg)	ISO 1133	g/10min	9.7
Glass temperature tg	ISO 11357 DSC (10°C/min – 20 à 280°C)	°C	76
Melting temperature tf	ISO 11357 DSC (10°C/min – 20 à 280°C)	°C	n/a

## PRINT PARAMETERS AND SPECIMENS DIMENSIONS

<b>PRINT AXIS</b>	XY
<b>PRINT SPEED</b>	50 mm/s
<b>INFILL</b>	100% - rectilinear
<b>INFILL ANGLE</b>	45°/-45°
<b>EXTRUSION TEMPERATURE</b>	225°C
<b>PLATFORM TEMPERATURE</b>	60°C

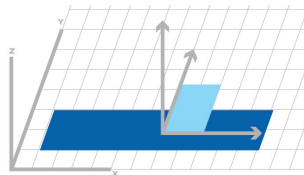
## RESULTS

### TENSILE TEST



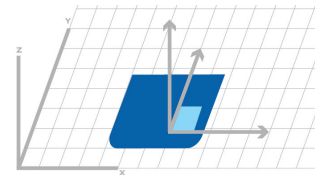
Dim.(mm): 75x12.5x2  
Specimen type: ISO 527-5A

### BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

### HARDNESS



Dim.(mm): 45x45x4

## PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
<b>TENSILE TEST</b>	Tensile modulus	ISO 527	MPa	4,015
	Tensile strength	ISO 527	MPa	52.9
	Elongation @tensile strength	ISO 527	%	2.4
	Tensile stress @break	ISO 527	MPa	41.3
	Tensile elongation @break	ISO 527	%	3.4
<b>BENDING TEST</b>	Flexural modulus	ISO 178	MPa	2,987
	Flexural stress @3.5%	ISO 178	MPa	80.4
	Flexural strength	ISO 178	MPa	>80
	Deformation @flexural strength	ISO 178	%	>4*
<b>CHARPY IMPACT</b>	Charpy impact strength (notched type A)	ISO 179	kJ/m2	4.03
<b>HARDNESS</b>	Hardness	ISO 868	Shore D	76.4

\*According to ISO 178, end of the test at 5% deformation even if there is no specimen break

The results presented are the averaged values of the PETG CARBON 1.75mm range.  
For each test, 5 specimens per reference, previously placed at least 24 hours in climatic chamber (23°C - hygrométrie : 50%) have been tested.