



# 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:

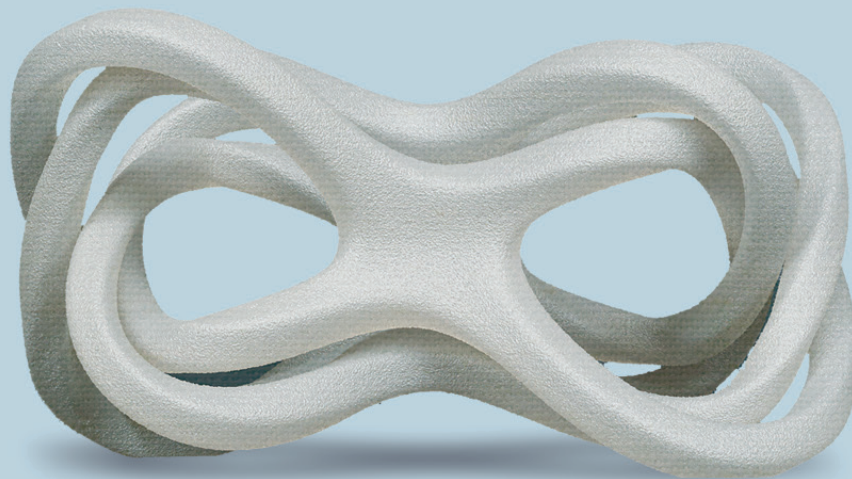
Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

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

**Date of Issue** : 1 March 2020



## PETG-S



**PETG-S** confers to the filament the perfect balance between flexibility and mechanical strength

| FLEXIBLE & STRONG | INTERLAYER ADHESION  
| LOW WATER ABSORPTION | FOOD CONTACT COMPLIANT

### FILAMENT PROPERTIES

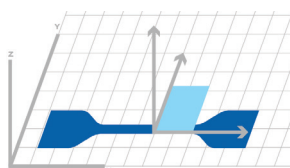
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183	g/cm <sup>3</sup>	1.274
Moisture rate	INS-6711	%	< 0,7
MFI (@225°C – 2.16 kg)	ISO 1133	g/10min	12.1
Glass temperature tg	ISO 11357 DSC (10°C/min – 20 à 280°C)	°C	80
Melting temperature tf	ISO 11357 DSC (10°C/min – 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

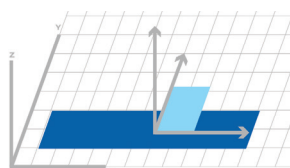
## RESULTS

### TENSILE TEST



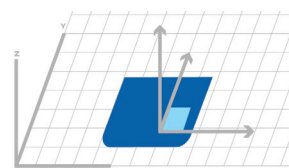
Dim.(mm): 75x12.5x2  
Specimen type: ISO 527-5A

### 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	1,833
	Tensile strength	ISO 527	MPa	46.6
	Elongation @tensile strength	ISO 527	%	3.3
	Tensile stress @break	ISO 527	MPa	11.1
	Tensile elongation @break	ISO 527	%	24.3
<b>BENDING TEST</b>	Flexural modulus	ISO 178	MPa	1,641
	Flexural stress @3.5%	ISO 178	MPa	57.5
	Deformation @flexural strength	ISO 178	%	>5*
<b>CHARPY IMPACT</b>	Charpy impact strength (notched type A)	ISO 179	kJ/m2	4.0
<b>HARDNESS</b>	Hardness	ISO 868	Shore D	72.5

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

## CERTIFICATION

### FOOD CONTACT APPROVAL

**EU 10/2011** (for all colours) & **FDA 21 CFR** (for natural only)

The results presented are the averaged values of the PETG-S 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.