



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:

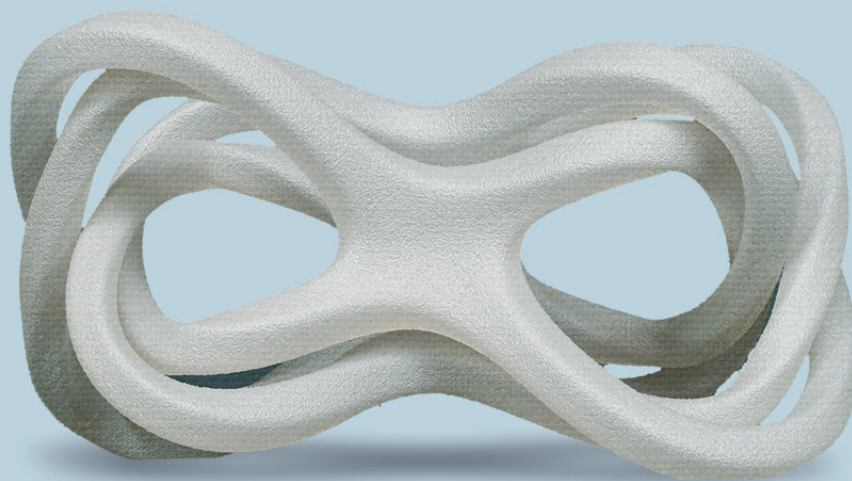
Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

Section 3: AUSTRALIAN ISSUE DATA

Date of Issue : 1 March 2020



TPU-92A



TPU-92A FILAMENT offers the possibility to print flexible objects and resists to different solvents

| ELASTIC | ABRASION RESISTANCE

| CHEMICAL RESISTANCE | FLEXIBLE

FILAMENT PROPERTIES

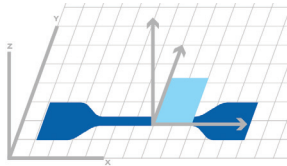
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.15 2.85 ± 0.15
Density	ISO 1183	g/cm3	1.159
Humidity rate	INS-6711	ppm	< 10,000
MFI (@210°C – 2.16 kg)	ISO 1133	g/10min	16.5
Glass temperature tg	ISO 11357 DSC (20°C/min – 20 à 220°C)	°C	n/a
Melting temperature tf	ISO 11357 DSC (20°C/min – 20 à 220°C)	°C	n/a

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINT AXIS	XY
PRINT SPEED	50 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	245°C
PLATFORM TEMPERATURE	85°C

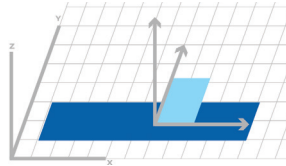
RESULTS

TENSILE TEST



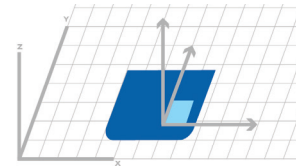
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

HARDNESS



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
TENSILE TEST	Tensile modulus	ISO 527	MPa	90
	Tensile strength	ISO 527	MPa	43.1
	Elongation @tensile strength	ISO 527	%	350
	Tensile stress @break	ISO 527	MPa	41.7
	Tensile elongation @break	ISO 527	%	351.6
BENDING TEST	Flexural modulus	ISO 178	MPa	81
	Flexural stress @3.5%	ISO 178	MPa	3.0
	Deformation @flexural strength	ISO 178	%	>5*
CHARPY IMPACT	Charpy impact strength (notched type A)	ISO 179	kJ/m2	no break
HARDNESS	Hardness	ISO 868	Shore A	92.0

*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 colors) & FDA 21 CFR (for all colors except black)

The results presented are the averaged values of the TPU-92A 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.