



# 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**

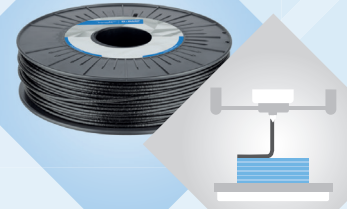
#### **Emergency Contact**

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



# Ultrafuse® PP GF30

## Printing with a High Level of Reinforcement

PP is one of the most preferred thermoplastics in different industries, especially in the automotive sector. However, a high level of reinforcement was always a problem in filament making, until now. Ultrafuse® PP GF30 contains 30% of special glass fibers that are designed for filament making and 3D printing. PP has an inherently lower moisture uptake than PA. In combination with its high level of glass fiber reinforcement, Ultrafuse® PP GF30 is a preferred filament for exceptional working environments. Thanks to its UV resistance it is more suitable than any other PP-based filament for applications directly exposed to sunlight.

### Benefits at a Glance

- Excellent chemical resistance
- Low density
- Low moisture uptake
- High heat resistance
- Improved UV resistance

### Example Applications

- Automotive / transportation
- Operational prototyping
- Jigs and fixtures

### Material Properties

<b>Tensile Strength (MPa)</b>	15.9 (ZX), 41.7 (XY)
<b>Flexural Modulus (MPa)</b>	1671 (ZX), 4026 (XZ), 3507 (XY)
<b>Elongation at Break</b>	0.8% (ZX), 4.4% (XY)
<b>Impact Strength Izod notched (kJ/m<sup>2</sup>)</b>	1.4 (ZX), 6.2 (XZ), 5.6 (XY)
<b>Impact Strength Izod unnotched (kJ/m<sup>2</sup>)</b>	2.6 (ZX), 2.4 (XZ), 20.5 (XY)
<b>HDT @ 0.45 MPa</b>	127 °C

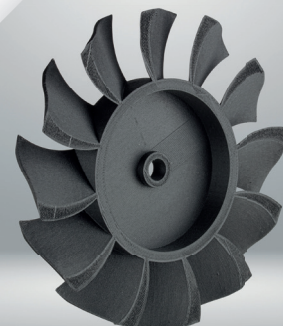
### Printing Guidelines

<b>Nozzle Temperature</b>	240-260 °C
<b>Nozzle**</b>	≥ 0.6 mm diameter
<b>Bed Temperature</b>	20-40 °C (tape) 70-90 °C (adhesive)
<b>Fan Speed</b>	up to 50 %
<b>Bed Modification***</b>	Fiber reinforced PP tape (Scotch) or PPGF adhesive
<b>Print Speed</b>	30-80 mm / sec
<b>Top/Bottom Thickness</b>	0.6 mm (3 layers)
<b>Shell Thickness</b>	1.2-1.8 mm
<b>Layer Height</b>	0.2-0.4 mm

\* The product data is provided in good faith and represents typical properties based on our current knowledge and experience; these data are not to be construed as specification limits or minimum values. Product properties may be changed without notice. This document does not create any liability, warranty or guarantee of product performance. It is the buyer's responsibility to determine the suitability of Ultrafuse products for the intended application.

\*\* Ultrafuse® PP GF30 is an abrasive material. A hardened nozzle (steel of ruby) 0.6 mm is advised to prevent clogging.

\*\*\* For adhesion to the bed we advise applying a layer of strapping tape to the print surface. We achieved the best results with Scotch® Extreme strapping tape.



# Ultrafuse® PP GF30

