



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

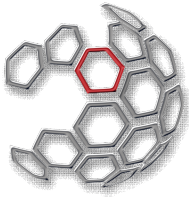
Emergency Contact

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



Technical Data Sheet: Obsidian™ Carbon Fiber Nylon 3D Filament

Obsidian™ was developed for use in all Markforged printers as an alternative to Onyx™

| Physical Properties | Standard | Unit | Obsidian™ | Onyx™ |
|---------------------|-----------|------|-----------|-------|
| Density | ASTM D792 | g/cc | 1.2 | 1.2 |

| Mechanical Properties | Standard | Unit | Obsidian™ | Onyx™ |
|---------------------------|-----------|------|-----------|-------|
| Tensile Strength, Break | ASTM D638 | MPa | 44 | 37 |
| Tensile Modulus | ASTM D638 | GPa | 3.5 | 2.4 |
| Tensile Elongation, Break | ASTM D638 | % | 11 | 25 |
| Flexural Strength | ASTM D790 | MPa | 75 | 71 |
| Flexural Modulus | ASTM D790 | GPa | 3.8 | 3 |

| Thermal Properties | Standard | Unit | Obsidian™ | Onyx™ |
|--|-----------|------|-----------|-------|
| Deflection Temperature at 0.45 MPa (66psi) | ASTM D648 | °C | 147 | 145 |

| Electrical Property | Standard | Unit | Obsidian™ | Onyx™ |
|---------------------|-----------|--------|------------------|------------------|
| Surface Resistance | ASTM D257 | Ohm/sq | >10 ⁹ | >10 ⁹ |

Printed Specimen Conditions

Printer: Markforged Onyx One™

Layer Height: 0.125mm

Infill: 100%

Specimen Orientation: XY Flat

Onyx™ data copied from Markforged data sheet