



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

Ultracur3D® RG 3280

Rigid | HDT 280 | Ceramic-filled

| General Properties | Norm | Typical values |
|------------------------|-----------------------------------|------------------------|
| Appearance | - | White |
| Viscosity, 30 °C | Cone/Plate Rheometer ¹ | 230 mPas |
| Viscosity, 50 °C | Cone/Plate Rheometer ¹ | 93 mPas |
| Density (printed part) | ASTM D792 | 1.73 g/cm ³ |
| Density (liquid resin) | ASTM D4052-18a | 1.65 g/cm ³ |

| Tensile Properties | Norm (5 mm/min) | Typical values (UV post-cured) | Typical values (UV + thermal*) |
|---------------------------|-----------------|--------------------------------|--------------------------------|
| E Modulus | ASTM D638 | 10000 MPa | 10300 MPa |
| Ultimate Tensile Strength | ASTM D638 | 76 MPa | 70 MPa |
| Elongation at Break | ASTM D638 | 1 % | 0.7 % |

| Flexural Properties | Norm | Typical values (UV post-cured) |
|---------------------|-----------|--------------------------------|
| Flexural Modulus | ASTM D790 | 8780 MPa |
| Flexural Strength | ASTM D790 | 73 MPa |

| Impact Properties | Norm | Typical values (UV post-cured) |
|--------------------------------|-----------|--------------------------------|
| Notched Izod (Machined), 23 °C | ASTM D256 | 2.36 J/m |
| Unnotched Izod, 23 °C | ASTM D256 | 4.67 J/m |
| Charpy notched, 23 °C | ISO 179-1 | 0.98 kJ/m ² |

| Thermal Properties | Norm | Typical values (UV post-cured) | Typical values (UV + thermal*) |
|--------------------|-----------|--------------------------------|--------------------------------|
| HDT at 0.45 MPa | ASTM D648 | >280 °C | >280 °C |
| HDT at 1.82 MPa | ASTM D648 | 132 °C | 162 °C |

| Hardness | Norm | Typical values (UV post-cured) |
|----------|------------|--------------------------------|
| Shore D | ASTM D2240 | 96 |

| Other | Norm | Typical values |
|---|-----------|----------------|
| Water Absorption, Short Term (24 hours) | ASTM D570 | 0.29 % |

1) Determined with TA-Instrument DHR rheometer, cone/plate, diameter 60 mm, shear rate 100 s⁻¹

* regular UV post-curing and additional thermal post-cure of 3h at 150°C, see User Guideline for more details.

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