

## Technical Data Sheet

# Ultracur3D® RG 1100

Rigid resin with superior stiffness and temperature resistance

| General Properties     | Norm                              | Typical Values         |
|------------------------|-----------------------------------|------------------------|
| Appearance             | -                                 | Clear                  |
| Viscosity, 30 °C       | Cone/Plate Rheometer <sup>1</sup> | 201 mPas               |
| Viscosity, 50 °C       | Cone/Plate Rheometer <sup>1</sup> | 65 mPas                |
| Density (printed part) | ASTM D792                         | 1.2 g/cm <sup>3</sup>  |
| Density (liquid resin) | ASTM D4052-18a                    | 1.12 g/cm <sup>3</sup> |

| Tensile Properties        | Norm (5 mm/min) | Typical Values |
|---------------------------|-----------------|----------------|
| E Modulus                 | ASTM D638       | 3080 MPa       |
| Ultimate Tensile Strength | ASTM D638       | 70 MPa         |
| Elongation at Break       | ASTM D638       | 5 %            |

| Flexural Properties | Norm      | Typical Values |
|---------------------|-----------|----------------|
| Flexural Modulus    | ASTM D790 | 2880 MPa       |
| Flexural Strength   | ASTM D790 | 119 MPa        |

| Impact Properties              | Norm      | Typical Values        |
|--------------------------------|-----------|-----------------------|
| Notched Izod (Machined), 23 °C | ASTM D256 | 16 J/m                |
| Charpy notched, 23 °C          | ISO 179-1 | 0.6 kJ/m <sup>2</sup> |

| Thermal Properties | Norm         | Typical Values |
|--------------------|--------------|----------------|
| HDT at 0.45 MPa    | ASTM D648    | 116 °C         |
| HDT at 1.82 MPa    | ASTM D648    | 84 °C          |
| Flammability       | UL 94 1.5 mm | HB             |

| Hardness | Norm       | Typical Values |
|----------|------------|----------------|
| Shore D  | ASTM D2240 | 85             |

| Other                                   | Norm      | Typical Values |
|-----------------------------------------|-----------|----------------|
| Water Absorption, Short Term (24 hours) | ASTM D570 | 0.32 %         |

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

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. The safety data given in this publication is for information purposes only and does not constitute a legally binding MSDS. The relevant MSDS can be obtained upon request from your supplier or you may contact BASF 3D Printing Solutions GmbH directly at [sales@basf-3dps.com](mailto:sales@basf-3dps.com). Version 2.1