

Technical Data Sheet

Ultracur3D® RG 50

Water-washable rigid resin for printing parts
with the highest accuracy.

General Properties	Norm	Typical Values
Appearance	-	Clear
Viscosity, 30 °C	Cone/Plate Rheometer ¹	65 mPas
Viscosity, 50 °C	Cone/Plate Rheometer ¹	26 mPas
Density (printed part)	ASTM D792	1.23 g/cm ³
Density (liquid resin)	ASTM D4052-18a	1.11 g/cm ³

Tensile Properties	Norm (50 mm/min)	Typical Values
E Modulus	ASTM D638	2300 MPa
Ultimate Tensile Strength	ASTM D638	63 MPa
Elongation at Break	ASTM D638	4 %

Flexural Properties	Norm	Typical Values
Flexural Modulus	ASTM D790	2100 MPa
Flexural Strength	ASTM D790	87 MPa

Impact Properties	Norm	Typical Values
Notched Izod (Machined), 23 °C	ASTM D256	11 J/m
Charpy notched, 23 °C	ISO 179-1	1.1 kJ/m ²

Thermal Properties	Norm	Typical Values
HDT at 0.45 MPa	ASTM D648	66 °C
HDT at 1.82 MPa	ASTM D648	55 °C

Hardness	Norm	Typical Values
Shore D	ASTM D2240	85

Other	Norm	Typical Values
Water Absorption, Short Term (24 hours)	ASTM D570	1.12 %

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

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. Version 3.2