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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/cm³
Density (liquid resin)	ASTM D4052-18a	1.65 g/cm³

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/m²

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	
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.