

## Technical Data Sheet

# Ultracur3D® ST 80

Multi-purpose resin targeting the lowest cost per part.

General Properties	Norm	Typical Values
Appearance	-	Clear
Viscosity, 30 °C	Cone/Plate Rheometer <sup>1</sup>	400 mPas
Viscosity, 50 °C	Cone/Plate Rheometer <sup>1</sup>	120 mPas
Density (printed part)	ASTM D792	1.12 g/cm <sup>3</sup>
Density (liquid resin)	ASTM D4052-18a	1.08 g/cm <sup>3</sup>

Tensile Properties	Norm (5 mm/min)	Typical Values
E Modulus	ASTM D638	1500 MPa
Ultimate Tensile Strength	ASTM D638	35 MPa
Elongation at Break	ASTM D638	20 %

Flexural Properties	Norm	Typical Values
Flexural Modulus	ASTM D790	1700 MPa
Flexural Strength	ASTM D790	60 MPa

Impact Properties	Norm	Typical Values
Notched Izod (Machined), -30 °C	ASTM D256	14 J/m
Notched Izod (Machined), 23 °C	ASTM D256	24 J/m
Unnotched Izod, 23 °C	ASTM D256	720 J/m
Charpy notched, 23 °C	ISO 179-1	1.4 kJ/m <sup>2</sup>

Thermal Properties	Norm	Typical Values
HDT at 0.45 MPa	ASTM D648	46 °C
HDT at 1.82 MPa	ASTM D648	42 °C

Hardness	Norm	Typical Values
Shore D	ASTM D2240	80

Other	Norm	Typical Values
Biocompatibility	ISO 10993	Information available on request
Water Absorption, Short Term (24 hours)	ASTM D570	0.50 %

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

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