

Technical Data Sheet

Ultracur3D[®] ST 45

Tough | Fast | Clear

General Properties	Norm	Typical Values
Appearance	-	Clear
Viscosity, 30 °C	Cone/Plate Rheometer ¹	210 mPas
Viscosity, 50 °C	Cone/Plate Rheometer ¹	80 mPas
Density (printed part)	ASTM D792	1.2 g/cm ³
Density (liquid resin)	ASTM D4052-18a	1.12 g/cm ³

Tensile Properties	Norm (5 mm/min)	Typical Values
E Modulus	ASTM D638	2300 MPa
Ultimate Tensile Strength	ASTM D638	60 MPa
Elongation at Break	ASTM D638	25 %

Flexural Properties	Norm	Typical Values
Flexural Modulus	ASTM D790	2400 MPa
Flexural Strength	ASTM D790	110 MPa

Impact Properties	Norm	Typical Values
Notched Izod (Machined), -30 °C	ASTM D256	20 J/m
Notched Izod (Machined), 23 °C	ASTM D256	30 J/m
Unnotched Izod, 23 °C	ASTM D256	509 J/m
Charpy notched, 23 °C	ISO 179-1	1.3 kJ/m ²

Thermal Properties	Norm	Typical Values
HDT at 0.45 MPa	ASTM D648	73 °C
HDT at 1.82 MPa	ASTM D648	61 °C
Flammability	UL 94 1.5 mm	HB
Glow-wire Test	DIN EN 60695-2-11	GWFI: 650 / 2.0

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	Information available on request

Detailed material data and support for FEA simulations available on request (sales@basf-3dps.com)

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

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