

Technical Data Sheet

Ultracur3D[®] ST 45 B

Tough | Fast | Black

General Properties	Norm	Typical Values
Appearance	-	Black
Viscosity, 30 °C	Cone/Plate Rheometer ¹	230 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	2000 MPa
Ultimate Tensile Strength	ASTM D638	53 MPa
Elongation at Break	ASTM D638	21 %

Flexural Properties	Norm	Typical Values
Flexural Modulus	ASTM D790	2100 MPa
Flexural Strength	ASTM D790	95 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	515 J/m
Charpy notched, 23 °C	ISO 179-1	2.6 kJ/m ²

Thermal Properties	Norm	Typical Values
HDT at 0.45 MPa	ASTM D648	63 °C
HDT at 1.82 MPa	ASTM D648	52 °C
Flammability	UL 94 (1.5 mm)	HB
Glow-wire Test	IEC 60695-2-12/-13 (2 mm)	GWIT: 625 °C GWFI: 600 °C

Dielectric/Electric Properties	Norm	Typical Values
Electrical strength	DIN EN 60243-1	29 kV / mm

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

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

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