

Technical Data Sheet

Product name: **3DJAKE ecoPLA Tough**

Version: 1.0

Date: 01.09.2020

Dimensions

Size	Ø tolerance	Roundness
1,75 mm	± 0,05 mm	≥ 95%
2,85 mm	± 0,10 mm	≥ 95%

Physical properties

Description	Typical value	Test method
Specific gravity	1,21 g/cc	ISO 1183
MFR 210 °C/2,16kg	8,75 g/10 min	ISO 1133
Tensile strength at Yield	46 MPa	ISO 527
Tensile strength at Break	19 MPa	ISO 527
Strain at yield	2%	ISO 527
Strain at break	27%	ISO 527
Tensile Modulus	2750 MPa	ISO 527
Impact strength	29,8 kJ/ m ²	ISO 179
Moisture absorption	1968 ppm	ISO 62

Thermal properties

Description	Typical value	Test method
Vicat softening temp.	57 °C	ISO 306

Packaging:

All spools are sealed and packed with silica gel to avoid humidity.

Additional info:

Recommended temperature for heated bed is ± 60 - 80°C. Adhesion is possible on different surfaces.

ecoPLA Tough can be used on all common desktop FDM or FFF technology 3D printers.

Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly.

Mechanical specifications

Description	Injection Moulded	3D-Printed X-Y	3D-Printed Z	Test method
Young's Modulus (MPa)	2750	2450	2200	ISO 527
Stress at Yield (MPa)	46	41	33	ISO 527
Stress at Break (MPa)	19	32	33	ISO 527
Strain at Yield (%)	2	2	2	ISO 527
Strain at Break (%)	27	20	2,6	ISO 527
Charpy Impact (kJ/m ²)	29,8	22,9	2,2	ISO 179
Flexural Strength	2750	2700	2250	ISO 178
Flexural Modulus	72	76	60	ISO 178

