

# Tensile Test Report

## Test Information

Sample ID:	PLA Bambulab
Material:	PLA
Grade:	Bambulab
Standard:	ISO 527 - Plastics
Date:	2025-12-08
Operator:	N/A
Customer:	N/A

## Specimen Dimensions

Specimen Type:	Type 1A
Gauge Length:	50.0 mm
Thickness:	4.0 mm
Width:	10.0 mm
Cross-Section Area:	40.0 mm <sup>2</sup>
Grip Distance:	115.0 mm

## Mechanical Properties

Property	Symbol	Value	Unit
Ultimate Tensile Strength	$\sigma_{UTS}$	6.40	MPa
Yield Strength (Rp0.2)	$\sigma_y$	0.00	MPa
Young's Modulus	E	37.9	MPa
Elongation at Break	$\epsilon_b$	50.00	%
Maximum Force	F_max	80.49	N
Force at Yield	F_y	0.00	N
Energy to Break	U_b	1.4525	J

## Test Conditions

Control Mode:	Displacement Control
Test Speed:	10.0 mm/min
Temperature:	23.0 °C
Humidity:	50.0 % RH
Data Points:	129
Test Duration:	2.6 s

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Tested by

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Approved by