

Prusa3D Prusament Linden Light PLA Wood Wood Brown

Material Engineering Report
MaterialID MAT0144

3DPiceland Engineering Platform

3DPiceland Labs

Generated with 3DPiceland Engineering Platform
v60.0.6 WORKFLOW-RELIABILITY - Bug Fixes and
Workflow Reliability

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Public-data contract: This static report contains only allowlisted material identity, public links, canonical MSRP and existing Verified Material Summary / governed score outputs. It excludes raw specimen rows and non-public operational data.

TEST COVERAGE

Complete

ENGINEERING AXES

6/6

PUBLIC MSRP

\$36.80 USD/kg

Material identity

MaterialID	MAT0144
Material	Prusa3D Prusament Linden Light PLA Wood Wood Brown
Manufacturer	Prusa3D
Product line	Prusament
Base material	PLA
Category	Standard
Variant / finish	Wood
Reinforcement	Wood
Color	Brown

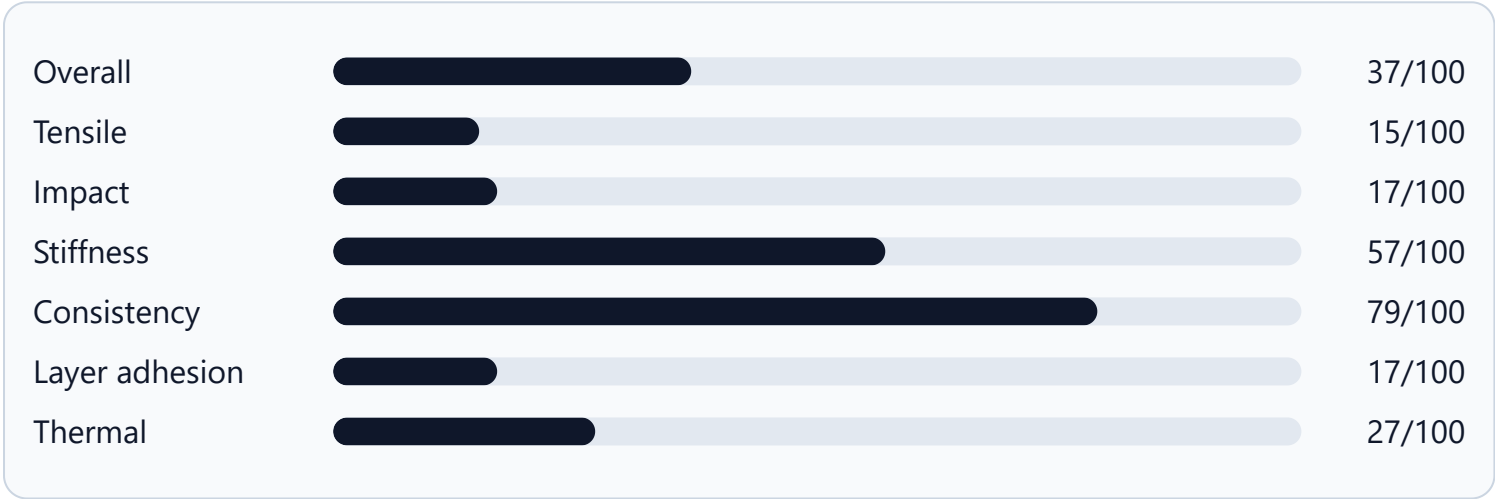
Governed engineering profile

Overall

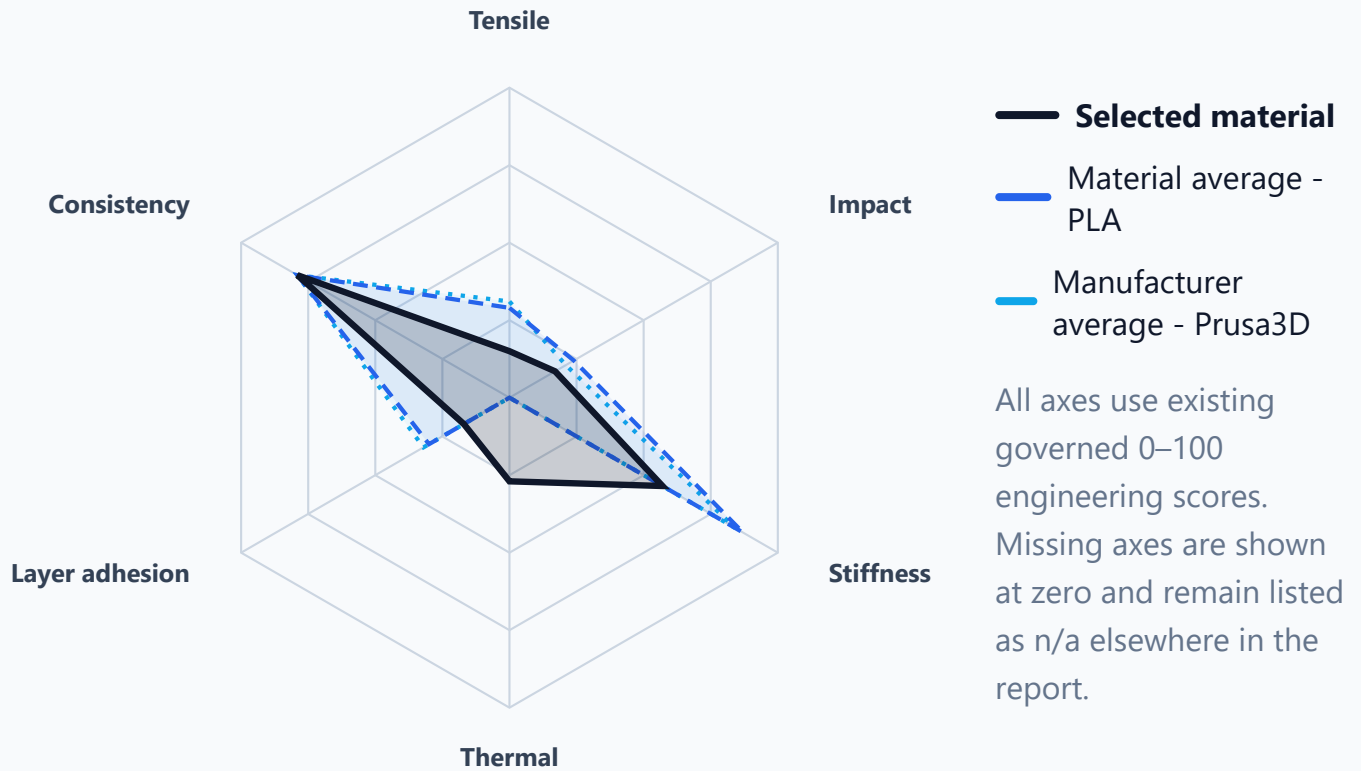
37/100

Tensile	15/100
Impact	17/100
Stiffness	57/100
Consistency	79/100
Layer adhesion	17/100
Thermal	27/100
Best available axis	consistency

Engineering score profile



Engineering radar



Fixture thermal result

53 °C · score 27/100 · method 3dp-thermal-deflection-fixture-v1
Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPIceland method; not ASTM D648, ISO 75, specimen temperature, certified HDT or a manufacturer limit.

Material and manufacturer context

Metric	Selected material	Material average	Manufacturer average
Overall	37/100	50/100	49/100
Tensile	15/100	29/100	31/100
Impact	17/100	24/100	21/100
Stiffness	57/100	87/100	84/100
Consistency	79/100	79/100	79/100
Layer adhesion	17/100	30/100	32/100
Thermal	27/100	—	—

Verified measurement results

Existing Verified Material Summary outputs. The public renderer does not read raw specimen rows or recalculate these values.

Measurement	Average	Std. deviation	CV	Samples	Confidence
Tensile upright	3.634 MPa	1.689 MPa	46.5%	8	8/10
Tensile flat	20.856 MPa	1.962 MPa	9.4%	10	10/10
Impact upright	91.451 kJ/m ²	11.603 kJ/m ²	12.7%	10	10/10
Impact flat	258.342 kJ/m ²	28.991 kJ/m ²	11.2%	10	10/10
Stiffness modulus	1708.447 MPa	—	—	—	—
Stiffness deflection	3.176 mm	—	—	—	—

Measurement provenance

Canonical per-module measured dates from SQLite, shown in unambiguous ISO format. Missing dates are not inferred.

Module	Measured date
Tensile	Not recorded
Impact	Not recorded
Stiffness	Not recorded
Thermal	Not recorded

Engineering interpretation

Summary: Prusa3D Prusament Linden Light PLA Wood Wood Brown has a specialized or limited engineering profile. It is below its material-family average by 12,8 points and below its manufacturer average by 12,1 points. Its strongest measured axis is Consistency, while the weakest axis is Tensile.

Data-driven review: Prusa3D Prusament Linden Light PLA Wood Wood Brown is best understood as a repeatable material for cosmetic, concept and low-load prototype work. Compared with the current verified dataset, it ranks better than 7% overall, is below the material-family average by 12,8 points, and is below the manufacturer average by 12,1 points. Its strongest engineering signal is Consistency, while Tensile is the main limitation to consider before using it for demanding applications.

BEST FEATURE

Consistency

MAIN LIMITATION

Tensile

DATASET POSITION

Better than 7%

218 / 234

Strengths

- Consistency: 79/100. Repeatability is one of the stronger signals in this material profile.

Limitations

- Tensile: 15/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 17/100. Avoid high impact or shock-loaded components without additional validation.
- Stiffness: 57/100. Expect less shape stability than the stronger materials in the same family.
- Layer adhesion: 17/100. Z-axis performance should be treated with caution.

Engineering trade-offs

- Good repeatability does not compensate for low tensile capability in load-bearing designs.
- The report should be read as a suitability warning rather than a general-purpose recommendation.

Recommended applications

- Repeatable print jobs and production-style batches
- Cosmetic parts, concept models or low-load prototypes
- Avoid high tensile load applications
- Avoid high impact components

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	37/100	218 / 234	Better than 7%
Tensile	15/100	210 / 226	Better than 8%
Impact	17/100	162 / 226	Better than 29%
Stiffness	57/100	192 / 223	Better than 14%
Consistency	79/100	93 / 231	Better than 60%
Layer adhesion	17/100	148 / 226	Better than 35%
Thermal	27/100	131 / 209	Better than 38%

Decision guidance

- Use this material mainly for low-load, visual or experimental parts.
- Review the listed alternatives if the application needs stronger overall performance.
- Do not choose it as a tensile-strength benchmark material.
- Avoid selecting it for impact-focused testing or shock-loaded designs.

Better alternatives

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0069	ProtoPasta HTPLA Blood of My Enemies PLA Red	ProtoPasta	100/100	—	—
MAT0079	Polymaker PolyLight PLA Pro Black	Polymaker	65/100	35/100	52/100
MAT0109	Polymaker PolyMax PLA Black	Polymaker	64/100	32/100	62/100

Peer context

Highest-scoring same-base-material peers from the current governed dataset. This context is descriptive and is not recalculated by the public renderer.

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0069	ProtoPasta HTPLA Blood of My Enemies PLA Red	ProtoPasta	100/100	—	—

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0079	Polymaker PolyLight PLA Pro Black	Polymaker	65/100	35/100	52/100
MAT0109	Polymaker PolyMax PLA Black	Polymaker	64/100	32/100	62/100
MAT0080	Polymaker PolySonic PLA Pro Blue	Polymaker	64/100	30/100	58/100
MAT0076	BambuLab Tough+ PLA Tough+ Black	BambuLab	63/100	26/100	59/100
MAT0108	Polymaker PolyLight PLA Black	Polymaker	61/100	33/100	14/100
MAT0074	Winkle Matte PLA Matte Red	Winkle	60/100	34/100	—
MAT0122	Add:North Enhanced PLA Clear	Add:North	59/100	40/100	10/100

Public links

[Manufacturer website](#) [Video review](#) [Download PDF](#)

Methodology and limitations

Results are comparative 3DPlceland measurements from home-built test equipment. Thermal is a nearby BlueDOT probe-indicated fixture temperature, not ASTM D648, ISO 75 or specimen temperature. Missing evidence remains n/a. Scores and test results are not recalculated by this publishing layer and do not replace certified manufacturer datasheets or accredited laboratory testing.

- [Testing methodology](#).
- [Engineering methodology whitepaper](#)