

Prima Creator PrimaValue Light Gray PLA Plus Gray

Material Engineering Report
MaterialID MAT0096

3DPiceland Engineering Platform
3DPiceland Labs
Generated with 3DPiceland Engineering Platform v60.0.6
WORKFLOW-RELIABILITY - Bug Fixes and Workflow
Reliability
Generated 2026-08-25 19:02:26

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

\$15.57 USD/kg

Material identity

MaterialID	MAT0096
Material	Prima Creator PrimaValue Light Gray PLA Plus Gray
Manufacturer	Prima Creator
Product line	PrimaValue
Base material	PLA
Category	Standard
Variant / finish	Plus
Reinforcement	—
Color	Gray

Governed engineering profile

Overall

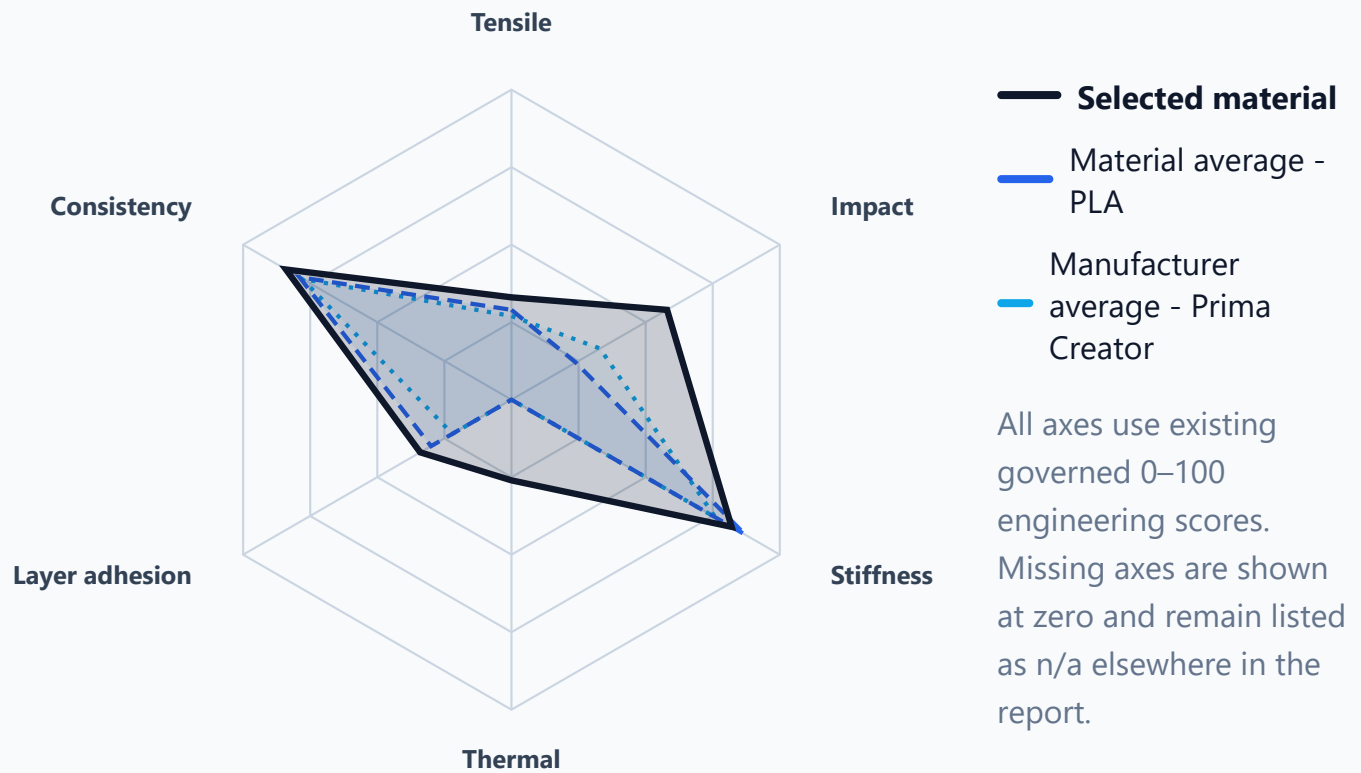
58/100

Tensile	33/100
Impact	58/100
Stiffness	82/100
Consistency	84/100
Layer adhesion	34/100
Thermal	26/100
Best available axis	consistency

Engineering score profile



Engineering radar



Fixture thermal result

51 °C · score 26/100 · 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	58/100	50/100	47/100
Tensile	33/100	29/100	27/100
Impact	58/100	24/100	33/100
Stiffness	82/100	87/100	76/100
Consistency	84/100	79/100	78/100
Layer adhesion	34/100	30/100	22/100
Thermal	26/100	—	—

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	13.535 MPa	5.586 MPa	41.3%	10	10/10
Tensile flat	39.898 MPa	3.061 MPa	7.7%	10	10/10
Impact upright	222.248 kJ/m ²	28.585 kJ/m ²	12.9%	10	10/10
Impact flat	940.648 kJ/m ²	25.285 kJ/m ²	2.7%	10	10/10
Stiffness modulus	2460.163 MPa	—	—	—	—
Stiffness deflection	2.206 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: Prima Creator PrimaValue Light Gray PLA Plus Gray has a balanced mid-range engineering profile. It is above its material-family average by 8,2 points and above its manufacturer average by 11 points. Its strongest measured axis is Consistency, while the weakest axis is Tensile.

Data-driven review: Prima Creator PrimaValue Light Gray PLA Plus Gray is best understood as a balanced material for general functional prototypes. Compared with the current verified dataset, it ranks better than 95% overall, is above the material-family average by 8,2 points, and is above the manufacturer average by 11 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 95%
13 / 234

Strengths

- Consistency: 84/100. Repeatability is one of the stronger signals in this material profile.
- Impact: 58/100. Impact behavior is competitive against the material-family context.
- Stiffness: 82/100. Stiffness is a relative advantage in this comparison group.

Limitations

- Tensile: 33/100. Avoid using this as the primary choice for tensile-loaded parts.
- Layer adhesion: 34/100. Z-axis performance should be treated with caution.

Engineering trade-offs

- Good repeatability does not compensate for low tensile capability in load-bearing designs.

Recommended applications

- Rigid brackets, fixtures and shape-stable prototypes
- Repeatable print jobs and production-style batches
- Cosmetic parts, concept models or low-load prototypes
- Avoid high tensile load applications

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	58/100	13 / 234	Better than 95%

Metric	Score	Rank	Percentile
Tensile	33/100	66 / 226	Better than 71%
Impact	58/100	9 / 226	Better than 96%
Stiffness	82/100	108 / 223	Better than 52%
Consistency	84/100	34 / 231	Better than 86%
Layer adhesion	34/100	68 / 226	Better than 70%
Thermal	26/100	176 / 209	Better than 16%

Decision guidance

- Use this material for moderate requirements after checking the weakest axis.
- Review the listed alternatives if the application needs stronger overall performance.
- Do not choose it as a tensile-strength benchmark material.

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	—	—
MAT0079	Polymaker PolyLight PLA Pro Black	Polymaker	65/100	35/100	52/100

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
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](#) [Download PDF](#)

Methodology and limitations

Results are comparative 3DPIceland 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](#)