

Fillamentum Extrafill

Brown PLA Glitter

Brown

Material Engineering Report
MaterialID MAT0121

3DPiceland Engineering Platform
3DPiceland Labs
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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

Partial

ENGINEERING AXES

3/6

PUBLIC MSRP

\$28.75 USD/kg

Material identity

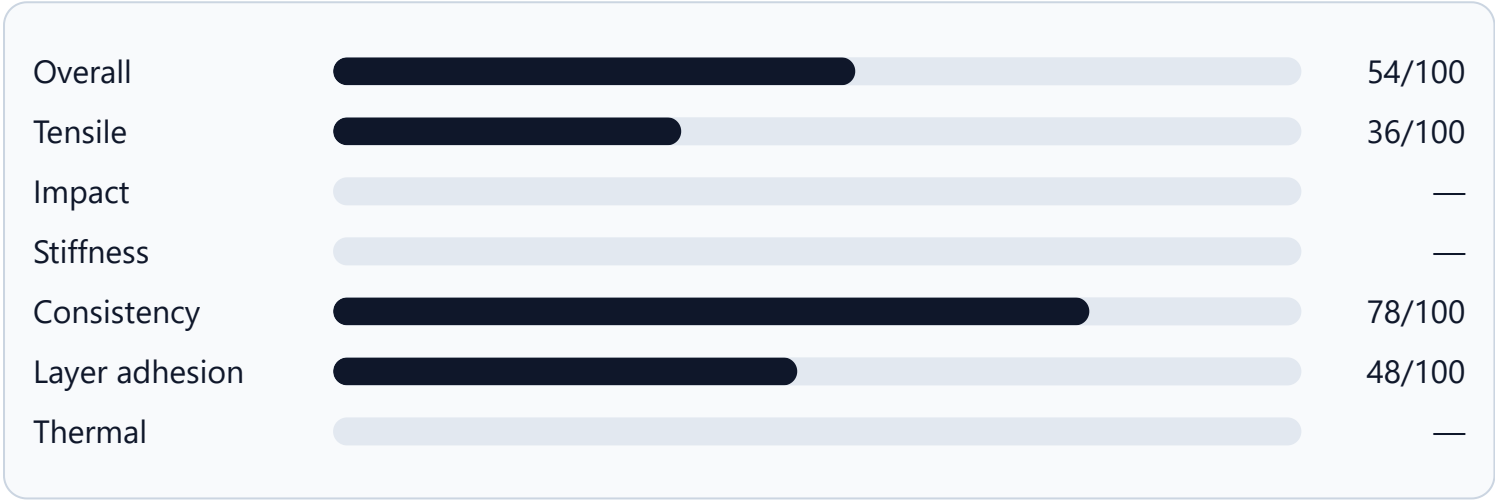
MaterialID	MAT0121
Material	Fillamentum Extrafill Brown PLA Glitter Brown
Manufacturer	Fillamentum
Product line	Extrafill
Base material	PLA
Category	Standard
Variant / finish	Glitter
Reinforcement	—
Color	Brown

Governed engineering profile

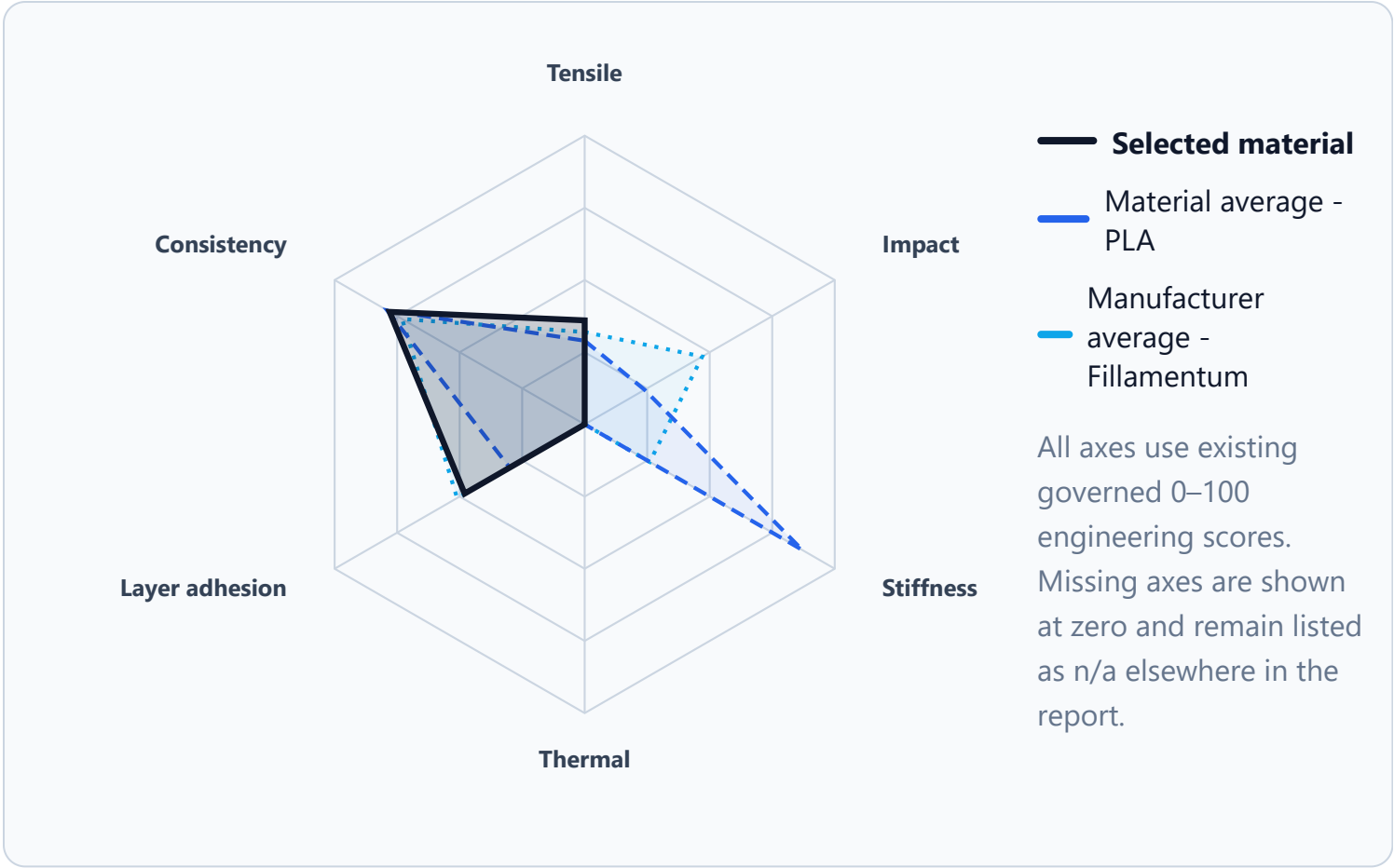
Overall	54/100
Tensile	36/100

Impact	—
Stiffness	—
Consistency	78/100
Layer adhesion	48/100
Thermal	—
Best available axis	consistency

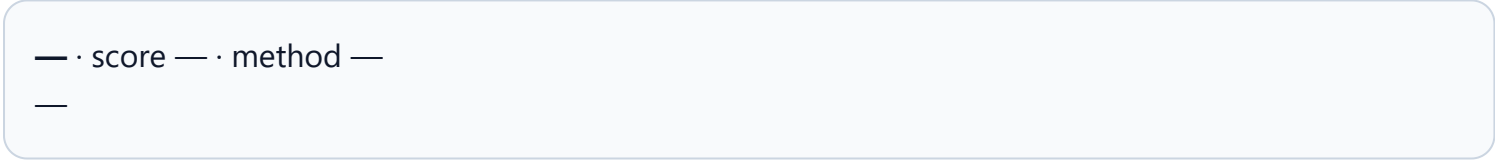
Engineering score profile



Engineering radar



Fixture thermal result



Material and manufacturer context

Metric	Selected material	Material average	Manufacturer average
Overall	54/100	50/100	49/100
Tensile	36/100	29/100	32/100
Impact	—	24/100	47/100
Stiffness	—	87/100	26/100
Consistency	78/100	79/100	73/100
Layer adhesion	48/100	30/100	51/100
Thermal	—	—	—

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	18.442 MPa	3.906 MPa	21.2%	10	10/10
Tensile flat	38.698 MPa	3.326 MPa	8.6%	10	10/10
Impact upright	—	—	—	—	—
Impact flat	—	—	—	—	—
Stiffness modulus	—	—	—	—	—
Stiffness deflection	—	—	—	—	—

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: Fillamentum Extrafill Brown PLA Glitter Brown has a specialized or limited engineering profile. It is above its material-family average by 3,6 points and above its manufacturer average by 4,6 points. Its strongest measured axis is Consistency, while the weakest axis is Tensile.

Data-driven review: Fillamentum Extrafill Brown PLA Glitter 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 82% overall, is above the material-family average by 3,6 points, and is above the manufacturer average by 4,6 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 82%
44 / 234

Strengths

- Layer adhesion: 48/100. Z-axis bonding is better than the material-family context.
- Consistency: 78/100. Repeatability is one of the stronger signals in this material profile.
- Tensile: 36/100. Tensile behavior is competitive against the material-family context.

Limitations

- Tensile: 36/100. Avoid using this as the primary choice for tensile-loaded parts.

Engineering trade-offs

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

Recommended applications

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

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	54/100	44 / 234	Better than 82%
Tensile	36/100	37 / 226	Better than 84%
Impact	—	—	—
Stiffness	—	—	—
Consistency	78/100	118 / 231	Better than 49%
Layer adhesion	48/100	23 / 226	Better than 90%

Metric	Score	Rank	Percentile
Thermal	—	—	—

Decision guidance

- Use this material for moderate requirements after checking the weakest axis.
- Review the listed alternatives if the application needs stronger overall performance.
- 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	—	—
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	—

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
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](#)