

Yasin Standard Black PETG CF Black

Material Engineering Report
MaterialID MAT0236

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

Complete

ENGINEERING AXES

6/6

PUBLIC MSRP

\$30.56 USD/kg

Material identity

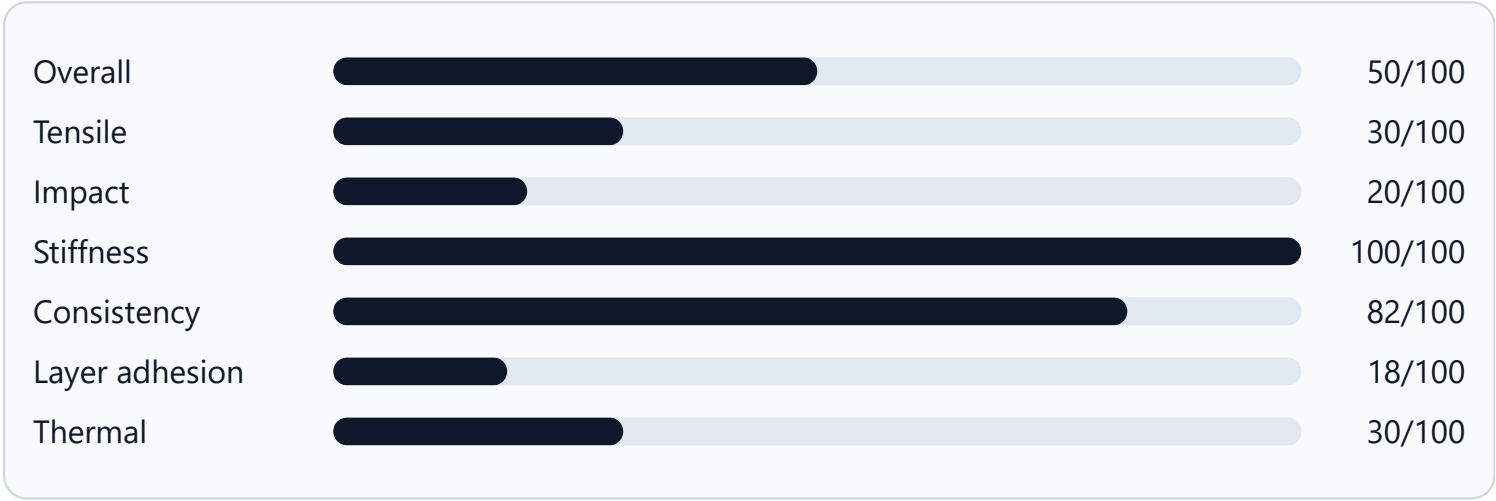
MaterialID	MAT0236
Material	Yasin Standard Black PETG CF Black
Manufacturer	Yasin
Product line	Standard
Base material	PETG
Category	Standard
Variant / finish	—
Reinforcement	CF
Color	Black

Governed engineering profile

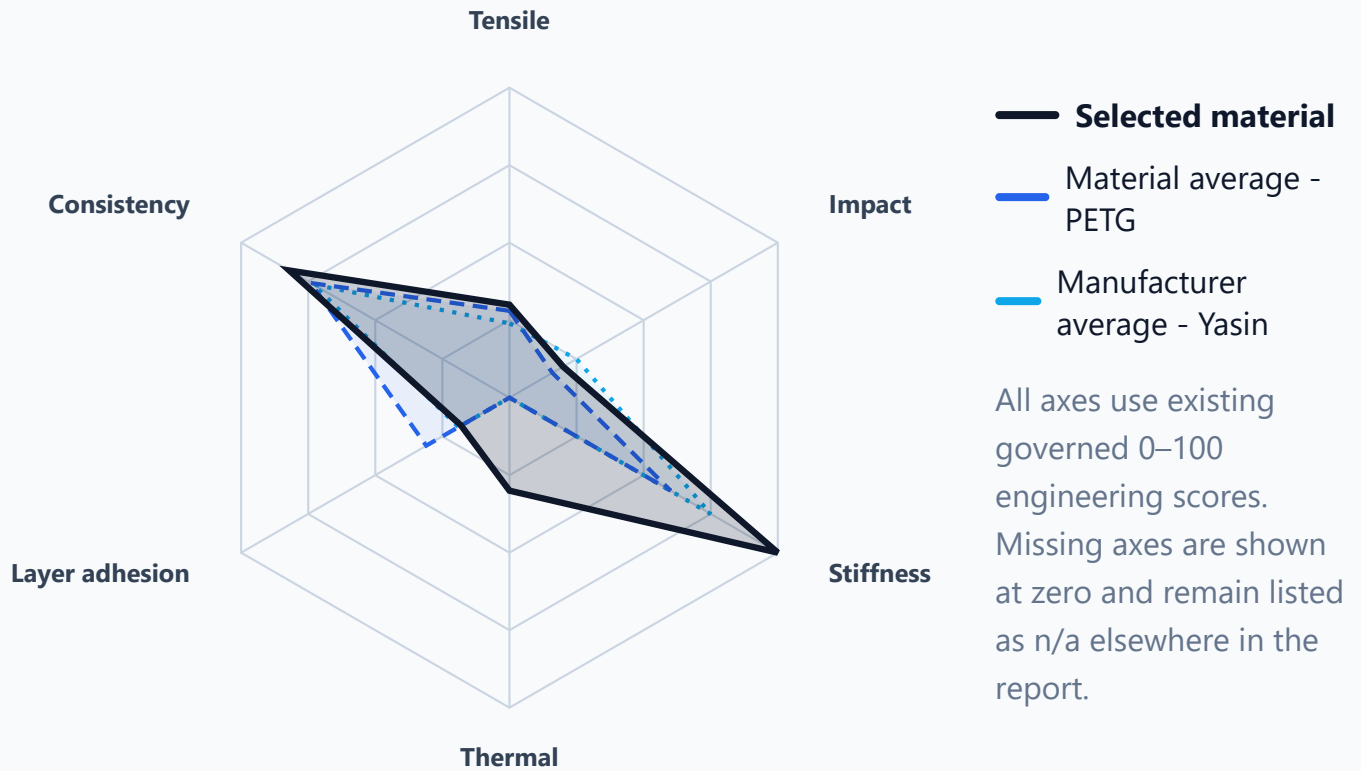
Overall	50/100
Tensile	30/100

Impact	20/100
Stiffness	100/100
Consistency	82/100
Layer adhesion	18/100
Thermal	30/100
Best available axis	stiffness

Engineering score profile



Engineering radar



Fixture thermal result

60 °C · score 30/100 · 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	50/100	42/100	43/100
Tensile	30/100	28/100	24/100
Impact	20/100	16/100	25/100
Stiffness	100/100	60/100	75/100
Consistency	82/100	74/100	73/100
Layer adhesion	18/100	31/100	19/100
Thermal	30/100	—	—

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	7.46 MPa	3.248 MPa	43.5%	10	10/10
Tensile flat	40.928 MPa	5.671 MPa	13.9%	10	10/10
Impact upright	148.492 kJ/m ²	10.036 kJ/m ²	6.8%	10	10/10
Impact flat	242.009 kJ/m ²	14.184 kJ/m ²	5.9%	10	10/10
Stiffness modulus	3024.791 MPa	—	—	—	—
Stiffness deflection	1.794 mm	—	—	—	—

Measurement provenance

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

Module	Measured date
Tensile	2026-08-20
Impact	2026-08-20
Stiffness	2026-08-19
Thermal	2026-08-20

Engineering interpretation

Summary: Yasin Standard Black PETG CF Black has a specialized or limited engineering profile. It is above its material-family average by 7,9 points and above its manufacturer average by 7,1 points. Its strongest measured axis is Stiffness, while the weakest axis is Layer Adhesion.

Data-driven review: Yasin Standard Black PETG CF Black 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 65% overall, is above the material-family average by 7,9 points, and is above the manufacturer average by 7,1 points. Its strongest engineering signal is Stiffness, while Layer Adhesion is the main limitation to consider before using it for demanding applications.

BEST FEATURE

Stiffness

MAIN LIMITATION

Layer Adhesion

DATASET POSITION

Better than 65%
84 / 234

Strengths

- Consistency: 82/100. Repeatability is one of the stronger signals in this material profile.
- Stiffness: 100/100. Stiffness is a relative advantage in this comparison group.

Limitations

- Tensile: 30/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 20/100. Avoid high impact or shock-loaded components without additional validation.
- Layer adhesion: 18/100. Z-axis performance should be treated with caution.

Engineering trade-offs

- Good repeatability does not compensate for low tensile capability in load-bearing designs.
- Stiffness is useful for shape stability, but impact tolerance is a separate limitation.

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
- Avoid high impact components

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	50/100	84 / 234	Better than 65%
Tensile	30/100	102 / 226	Better than 55%
Impact	20/100	137 / 226	Better than 40%
Stiffness	100/100	1 / 223	Better than 100%
Consistency	82/100	52 / 231	Better than 78%
Layer adhesion	18/100	143 / 226	Better than 37%
Thermal	30/100	96 / 209	Better than 55%

Decision guidance

- Use this material for moderate requirements after checking the weakest axis.
- 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
No stronger same-base-material alternatives were identified in the current governed dataset.					

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
MAT0198	Siraya Tech Fiberheart Black PETG Pro CF Black	Siraya Tech	49/100	33/100	19/100
MAT0060	ColorFabb XT PETG Pink	ColorFabb	48/100	—	—
MAT0062	IC3D Standard PETG Green-Yellow	IC3D	48/100	26/100	—
MAT0165	Winkle Standard Ash Gray PETG Gray	Winkle	46/100	30/100	14/100

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0225	Spectrum Premium Iceland Blue PETG Blue	Spectrum	46/100	33/100	17/100
MAT0063	IC3D Standard PETG Yellow	IC3D	46/100	26/100	—
MAT0235	Yasin Standard Black PETG GF Black	Yasin	45/100	27/100	21/100
MAT0171	BambuLab Basic Gray PETG Gray	BambuLab	45/100	34/100	14/100

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](#)