

Eryone Standard Black PA6 GF Black

Material Engineering Report
MaterialID MAT0210

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

4/6

PUBLIC MSRP

\$25.00 USD/kg

Material identity

MaterialID	MAT0210
Material	Eryone Standard Black PA6 GF Black
Manufacturer	Eryone
Product line	Standard
Base material	PA6
Category	Engineering
Variant / finish	—
Reinforcement	GF
Color	Black

Governed engineering profile

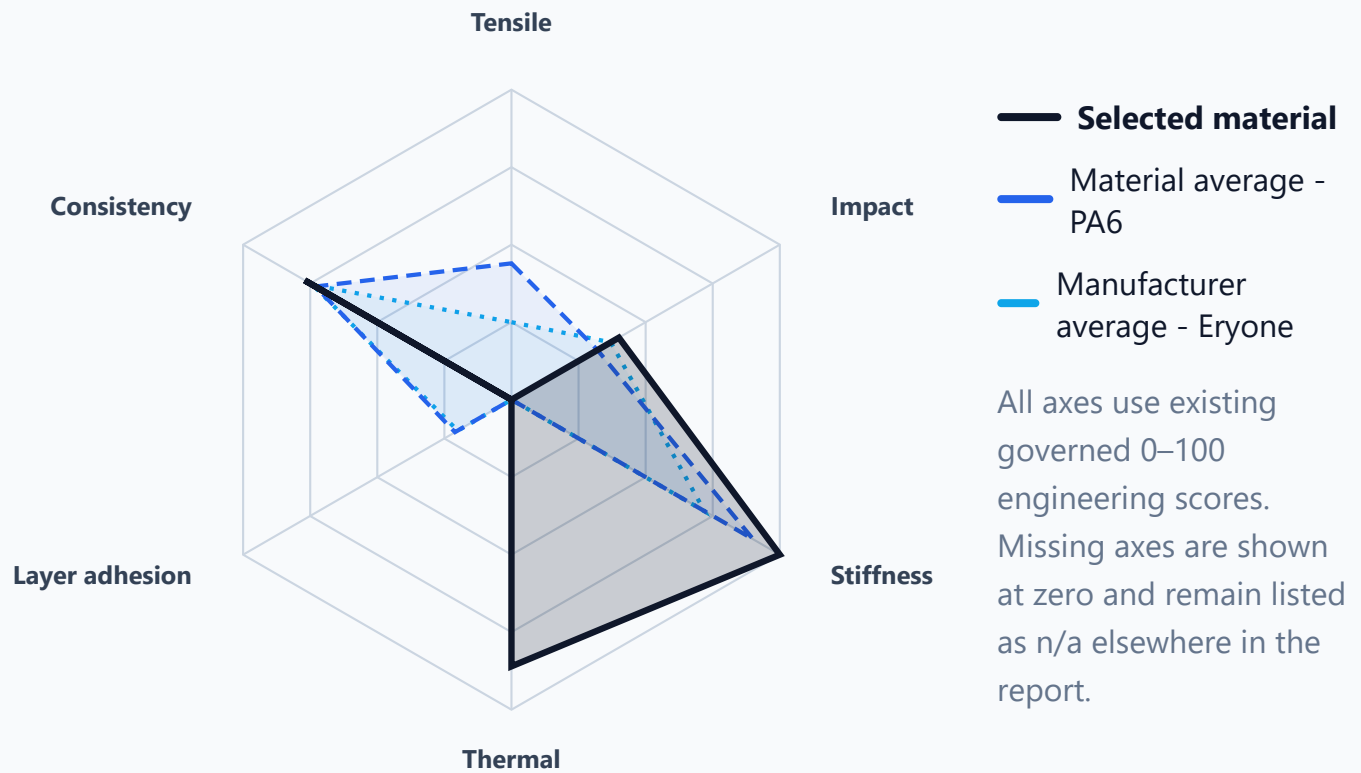
Overall	72/100
Tensile	—

Impact	40/100
Stiffness	100/100
Consistency	77/100
Layer adhesion	—
Thermal	86/100
Best available axis	stiffness

Engineering score profile



Engineering radar



Fixture thermal result

171 °C · score 86/100 · 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	72/100	53/100	46/100
Tensile	—	44/100	25/100
Impact	40/100	32/100	37/100
Stiffness	100/100	90/100	72/100
Consistency	77/100	73/100	74/100
Layer adhesion	—	21/100	20/100
Thermal	86/100	—	—

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	—	—	—	—	—
Tensile flat	—	—	—	—	—
Impact upright	105.069 kJ/m ²	25.669 kJ/m ²	24.4%	10	10/10
Impact flat	695.775 kJ/m ²	47.255 kJ/m ²	6.8%	10	10/10
Stiffness modulus	3181.245 MPa	—	—	—	—
Stiffness deflection	1.706 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	2026-08-02
Stiffness	2026-08-01
Thermal	Not recorded

Engineering interpretation

Summary: Eryone Standard Black PA6 GF Black has a balanced mid-range engineering profile. It is above its material-family average by 19,6 points and above its manufacturer average by 26 points. Its strongest measured axis is Stiffness, while the weakest axis is Impact.

Data-driven review: Eryone Standard Black PA6 GF Black is best understood as a balanced material for general functional prototypes. Compared with the current verified dataset, it ranks better than 100% overall, is above the material-family average by 19,6 points, and is above the manufacturer average by 26 points. Its strongest engineering signal is Stiffness, while Impact is the main limitation to consider before using it for demanding applications.

BEST FEATURE

Stiffness

MAIN LIMITATION

Impact

DATASET POSITION

Better than 100%
2 / 234

Strengths

- Consistency: 77/100. Repeatability is one of the stronger signals in this material profile.
- Impact: 40/100. Impact behavior is competitive against the material-family context.
- Stiffness: 100/100. Stiffness is a relative advantage in this comparison group.

Limitations

- Main watch item: Impact at 40/100.

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

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	72/100	2 / 234	Better than 100%

Metric	Score	Rank	Percentile
Tensile	—	—	—
Impact	40/100	49 / 226	Better than 79%
Stiffness	100/100	1 / 223	Better than 100%
Consistency	77/100	137 / 231	Better than 41%
Layer adhesion	—	—	—
Thermal	86/100	1 / 209	Better than 100%

Decision guidance

- Use this material when its best feature aligns with the part requirement.
- Do not choose it as a tensile-strength benchmark material.

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
MAT0025	Extrudr DuraPro PA6 GF Black	Extrudr	59/100	47/100	48/100
MAT0023	Extrudr DuraPro PA6 CF Black	Extrudr	54/100	52/100	27/100
MAT0026	Yasin Standard Black PA6 GF Black	Yasin	51/100	44/100	21/100
MAT0024	Yasin Standard Black PA6 CF Black	Yasin	51/100	41/100	24/100
MAT0027	Yasin Standard Clear PA6 Clear	Yasin	48/100	42/100	30/100
MAT0212	Eryone Standard Black PA6 CF Black	Eryone	34/100	39/100	—

Public links

[Manufacturer website](#) [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](#)