

Yasin Standard Clear PA6 Clear

Material Engineering Report
MaterialID MAT0027

3DPiceland Engineering Platform
3DPiceland Labs

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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

\$30.24 USD/kg

Material identity

MaterialID	MAT0027
Material	Yasin Standard Clear PA6 Clear
Manufacturer	Yasin
Product line	Standard
Base material	PA6
Category	Engineering
Variant / finish	—
Reinforcement	—
Color	Clear

Governed engineering profile

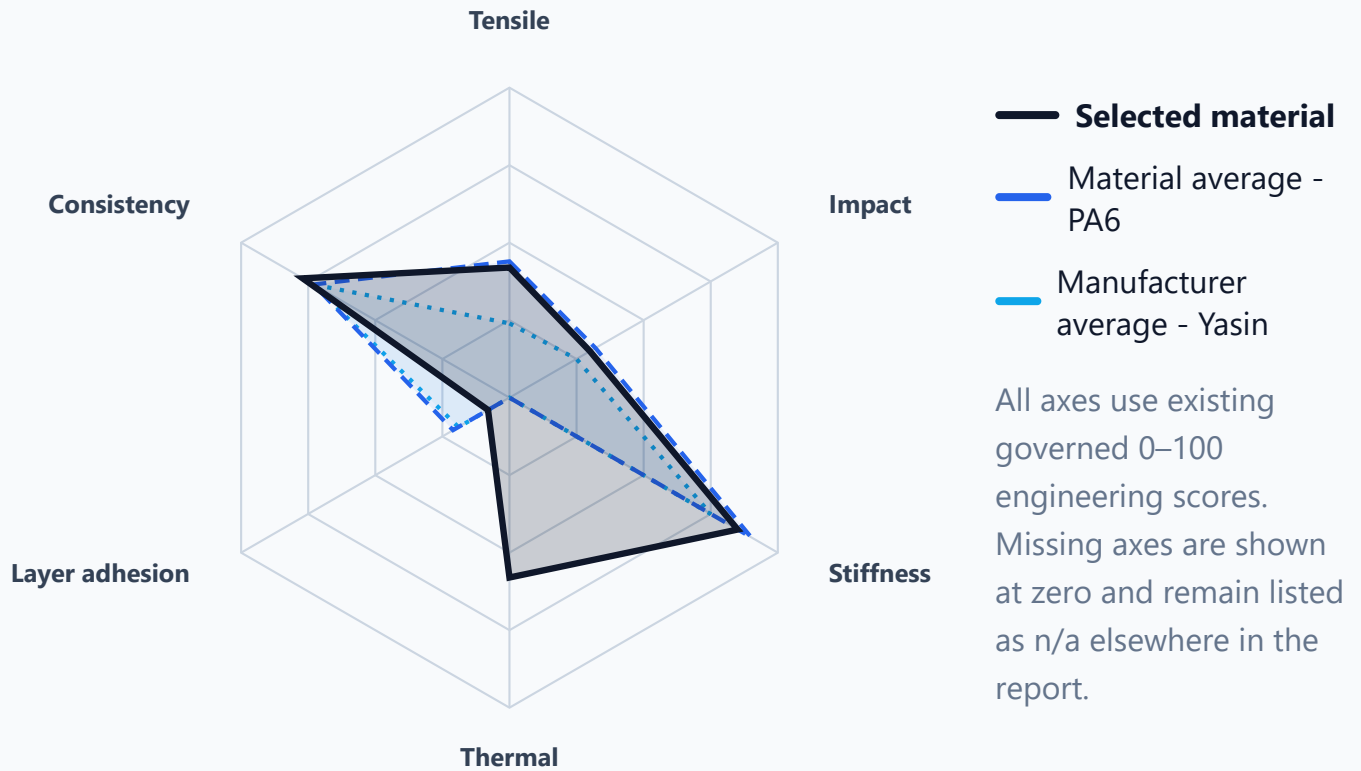
Overall	48/100
Tensile	42/100

Impact	30/100
Stiffness	85/100
Consistency	77/100
Layer adhesion	8/100
Thermal	58/100
Best available axis	stiffness

Engineering score profile



Engineering radar



Fixture thermal result

115 °C · score 58/100 · 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	48/100	53/100	43/100
Tensile	42/100	44/100	24/100
Impact	30/100	32/100	25/100
Stiffness	85/100	90/100	75/100
Consistency	77/100	73/100	73/100
Layer adhesion	8/100	21/100	19/100
Thermal	58/100	—	—

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	4.749 MPa	2.179 MPa	45.9%	8	8/10
Tensile flat	62.292 MPa	14.734 MPa	23.7%	9	9/10
Impact upright	146.786 kJ/m ²	12.207 kJ/m ²	8.3%	10	10/10
Impact flat	454.066 kJ/m ²	52.321 kJ/m ²	11.5%	10	10/10
Stiffness modulus	2562.67 MPa	—	—	—	—
Stiffness deflection	2.118 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: Yasin Standard Clear PA6 Clear has a specialized or limited engineering profile. It is below its material-family average by 4,4 points and above its manufacturer average by 5,3 points. Its strongest measured axis is Stiffness, while the weakest axis is Layer Adhesion.

Data-driven review: Yasin Standard Clear PA6 Clear 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 57% overall, is below the material-family average by 4,4 points, and is above the manufacturer average by 5,3 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 57%
101 / 234

Strengths

- Consistency: 77/100. Repeatability is one of the stronger signals in this material profile.
- Stiffness: 85/100. Stiffness is a relative advantage in this comparison group.

Limitations

- Impact: 30/100. Avoid high impact or shock-loaded components without additional validation.
- Layer adhesion: 8/100. Z-axis performance should be treated with caution.

Engineering trade-offs

- Stiffness is useful for shape stability, but impact tolerance is a separate limitation.
- The report should be read as a suitability warning rather than a general-purpose recommendation.

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 impact components

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	48/100	101 / 234	Better than 57%
Tensile	42/100	6 / 226	Better than 98%

Metric	Score	Rank	Percentile
Impact	30/100	64 / 226	Better than 72%
Stiffness	85/100	94 / 223	Better than 58%
Consistency	77/100	143 / 231	Better than 39%
Layer adhesion	8/100	221 / 226	Better than 3%
Thermal	58/100	10 / 209	Better than 96%

Decision guidance

- Use this material mainly for low-load, visual or experimental parts.
- 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
MAT0210	Eryone Standard Black PA6 GF Black	Eryone	72/100	—	40/100
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

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
MAT0210	Eryone Standard Black PA6 GF Black	Eryone	72/100	—	40/100
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

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
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](#)