

Yasin Standard Green PCTG Green

Material Engineering Report
MaterialID MAT0238

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

\$33.44 USD/kg

Material identity

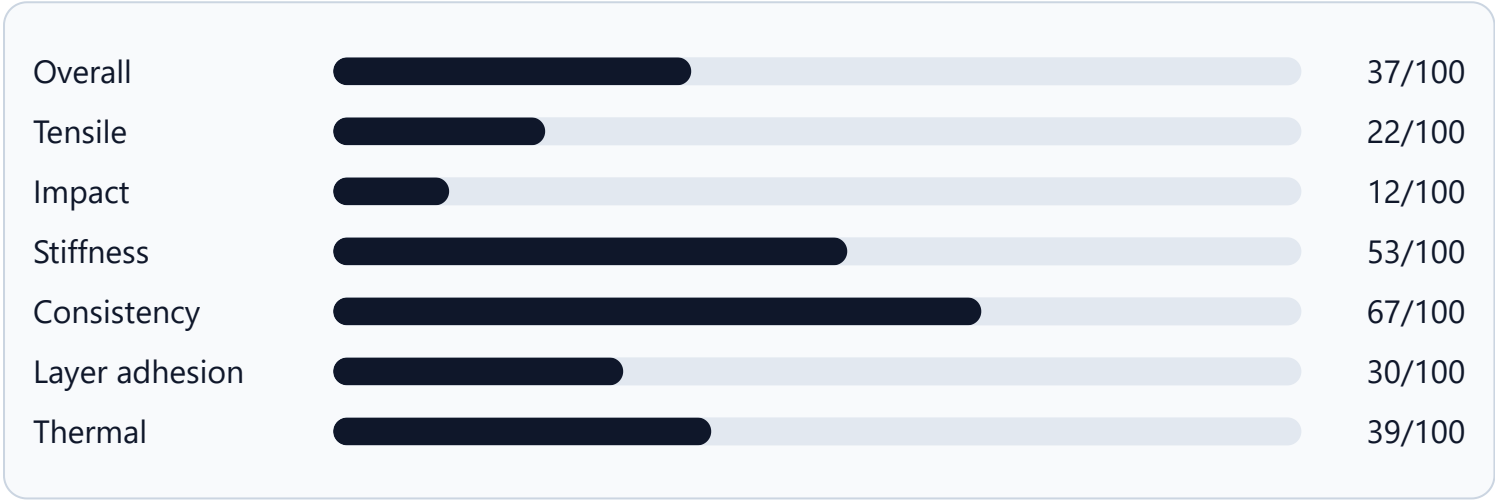
MaterialID	MAT0238
Material	Yasin Standard Green PCTG Green
Manufacturer	Yasin
Product line	Standard
Base material	PCTG
Category	Standard
Variant / finish	—
Reinforcement	—
Color	Green

Governed engineering profile

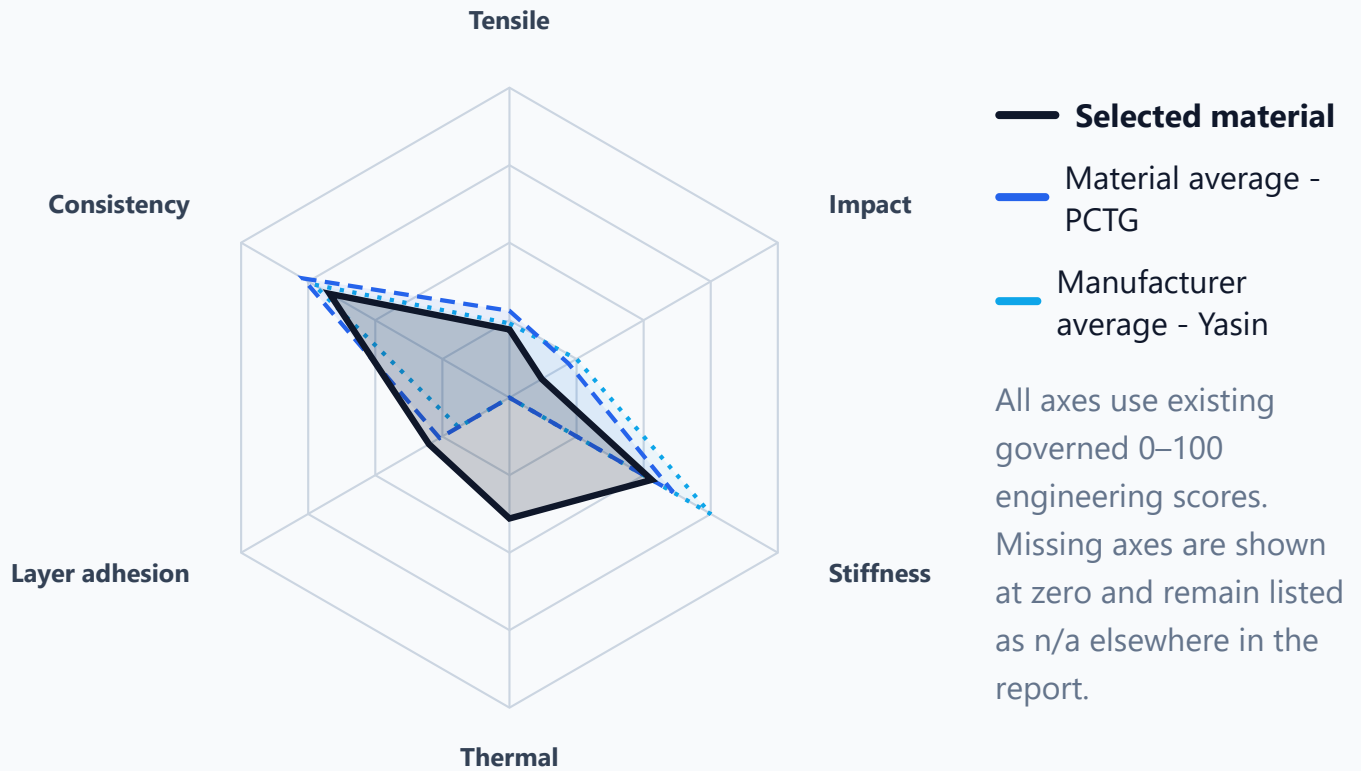
Overall	37/100
Tensile	22/100

Impact	12/100
Stiffness	53/100
Consistency	67/100
Layer adhesion	30/100
Thermal	39/100
Best available axis	consistency

Engineering score profile



Engineering radar



Fixture thermal result

78 °C · score 39/100 · 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	37/100	43/100	43/100
Tensile	22/100	28/100	24/100
Impact	12/100	22/100	25/100
Stiffness	53/100	61/100	75/100
Consistency	67/100	77/100	73/100
Layer adhesion	30/100	26/100	19/100
Thermal	39/100	—	—

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	8.044 MPa	3.704 MPa	46%	10	10/10
Tensile flat	26.793 MPa	12.068 MPa	45%	10	10/10
Impact upright	55.154 kJ/m ²	15.955 kJ/m ²	28.9%	10	10/10
Impact flat	188.766 kJ/m ²	26.218 kJ/m ²	13.9%	10	10/10
Stiffness modulus	1583.796 MPa	—	—	—	—
Stiffness deflection	3.426 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	2026-08-20
Thermal	2026-08-20

Engineering interpretation

Summary: Yasin Standard Green PCTG Green has a specialized or limited engineering profile. It is below its material-family average by 6,1 points and below its manufacturer average by 6,3 points. Its strongest measured axis is Consistency, while the weakest axis is Impact.

Data-driven review: Yasin Standard Green PCTG Green 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 6% overall, is below the material-family average by 6,1 points, and is below the manufacturer average by 6,3 points. Its strongest engineering signal is Consistency, while Impact is the main limitation to consider before using it for demanding applications.

BEST FEATURE

Consistency

MAIN LIMITATION

Impact

DATASET POSITION

Better than 6%
221 / 234

Strengths

- Best available signal: Consistency at 67/100.

Limitations

- Tensile: 22/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 12/100. Avoid high impact or shock-loaded components without additional validation.
- Consistency: 67/100. Repeatability may not be the best reason to choose this filament.
- Layer adhesion: 30/100. Z-axis performance should be treated with caution.

Engineering trade-offs

- Good repeatability does not compensate for low tensile capability in load-bearing designs.
- The report should be read as a suitability warning rather than a general-purpose recommendation.

Recommended applications

- 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	37/100	221 / 234	Better than 6%
Tensile	22/100	169 / 226	Better than 26%
Impact	12/100	204 / 226	Better than 10%
Stiffness	53/100	198 / 223	Better than 12%
Consistency	67/100	217 / 231	Better than 6%
Layer adhesion	30/100	85 / 226	Better than 63%
Thermal	39/100	54 / 209	Better than 75%

Decision guidance

- Use this material mainly for low-load, visual or experimental parts.
- Review the listed alternatives if the application needs stronger overall performance.
- 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
MAT0039	3D Fuel PCTG PCTG Pro CF Black	3D Fuel	48/100	27/100	26/100
MAT0041	3D Fuel PCTG Cobalt Blue PCTG Pro Blue	3D Fuel	44/100	34/100	17/100
MAT0227	Spectrum Smart Sky Blue PCTG Blue	Spectrum	43/100	34/100	23/100

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
MAT0039	3D Fuel PCTG PCTG Pro CF Black	3D Fuel	48/100	27/100	26/100
MAT0041	3D Fuel PCTG Cobalt Blue PCTG Pro Blue	3D Fuel	44/100	34/100	17/100

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0227	Spectrum Smart Sky Blue PCTG Blue	Spectrum	43/100	34/100	23/100
MAT0040	3D Fuel PCTG Toolbox Red PCTG Pro GF Red	3D Fuel	42/100	25/100	31/100

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](#)