

# Yasin Standard White PLA matt White

Material Engineering Report  
MaterialID MAT0233

3DPiceland Engineering Platform

3DPiceland Labs

Generated with 3DPiceland Engineering Platform v60.0.6

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

**\$25.44 USD/kg**

## Material identity

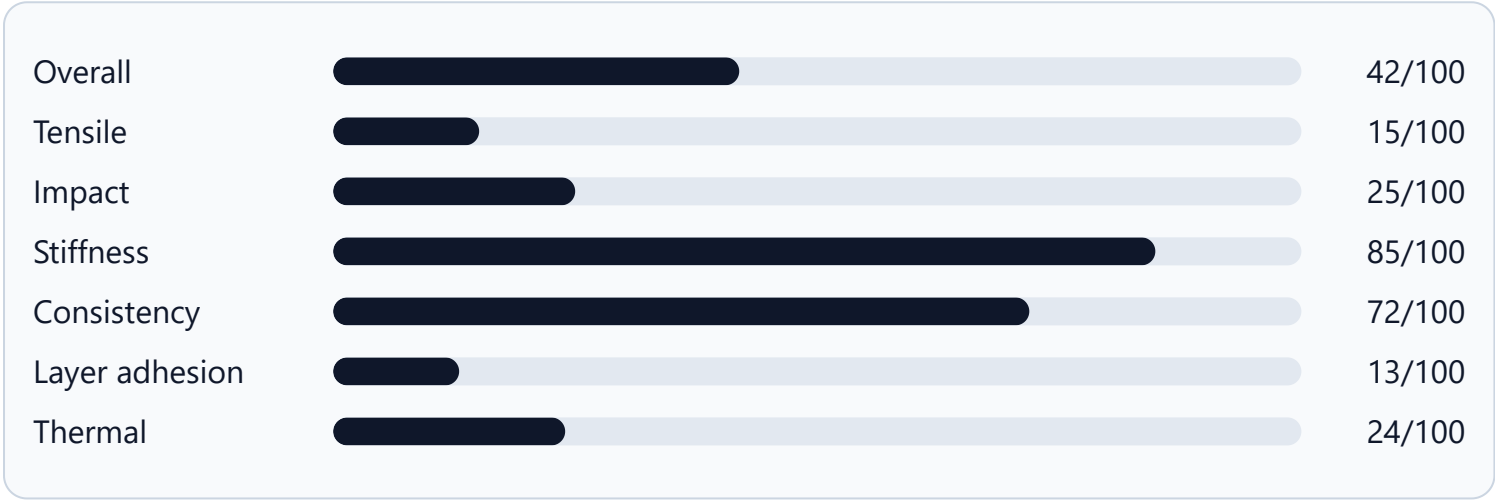
|                  |                                     |
|------------------|-------------------------------------|
| MaterialID       | MAT0233                             |
| Material         | Yasin Standard White PLA matt White |
| Manufacturer     | Yasin                               |
| Product line     | Standard                            |
| Base material    | PLA                                 |
| Category         | Standard                            |
| Variant / finish | matt                                |
| Reinforcement    | —                                   |
| Color            | White                               |

## Governed engineering profile

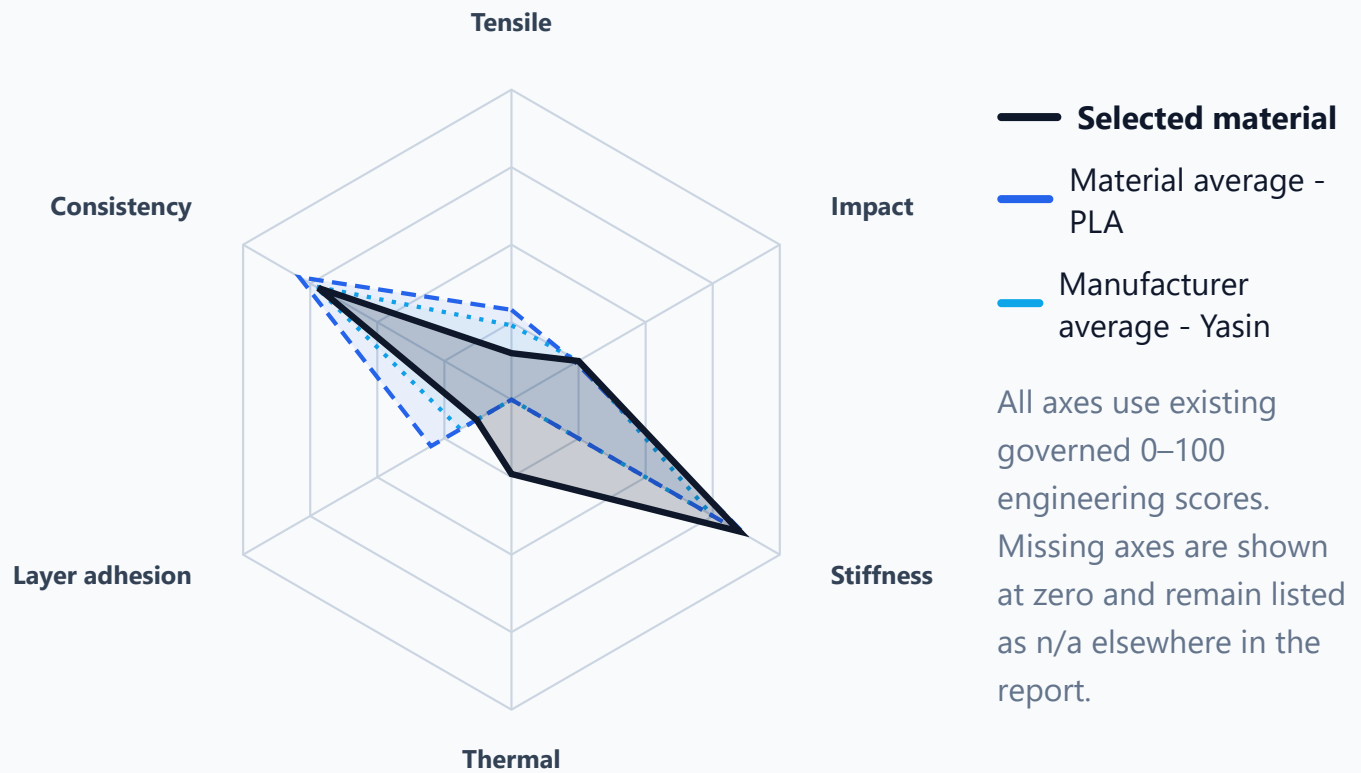
|         |        |
|---------|--------|
| Overall | 42/100 |
| Tensile | 15/100 |

|                     |           |
|---------------------|-----------|
| Impact              | 25/100    |
| Stiffness           | 85/100    |
| Consistency         | 72/100    |
| Layer adhesion      | 13/100    |
| Thermal             | 24/100    |
| Best available axis | stiffness |

## Engineering score profile



## Engineering radar



## Fixture thermal result

**48 °C** · score 24/100 · method 3dp-thermal-deflection-fixture-v1

Nearby BlueDOT probe-indicated fixture temperature from a non-standard comparative 3DPlceland 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        | 42/100            | 50/100           | 43/100               |
| Tensile        | 15/100            | 29/100           | 24/100               |
| Impact         | 25/100            | 24/100           | 25/100               |
| Stiffness      | 85/100            | 87/100           | 75/100               |
| Consistency    | 72/100            | 79/100           | 73/100               |
| Layer adhesion | 13/100            | 30/100           | 19/100               |
| Thermal        | 24/100            | —                | —                    |

## 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      | 2.749 MPa                 | 1.612 MPa                | 58.6% | 8       | 8/10       |
| Tensile flat         | 21.425 MPa                | 6.557 MPa                | 30.6% | 10      | 10/10      |
| Impact upright       | 131.428 kJ/m <sup>2</sup> | 18.079 kJ/m <sup>2</sup> | 13.8% | 10      | 10/10      |
| Impact flat          | 359.497 kJ/m <sup>2</sup> | 24.766 kJ/m <sup>2</sup> | 6.9%  | 10      | 10/10      |
| Stiffness modulus    | 2544.996 MPa              | —                        | —     | —       | —          |
| Stiffness deflection | 2.132 mm                  | —                        | —     | —       | —          |

## Measurement provenance

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

| Module    | Measured date |
|-----------|---------------|
| Tensile   | 2026-08-19    |
| Impact    | 2026-08-20    |
| Stiffness | 2026-08-18    |
| Thermal   | 2026-08-20    |

## Engineering interpretation

**Summary:** Yasin Standard White PLA matt White has a specialized or limited engineering profile. It is below its material-family average by 8,3 points and below its manufacturer average by 1,2 points. Its strongest measured axis is Stiffness, while the weakest axis is Layer Adhesion.

**Data-driven review:** Yasin Standard White PLA matt White 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 21% overall, is below the material-family average by 8,3 points, and is roughly aligned with the manufacturer average. 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 21%**  
185 / 234

### Strengths

- Consistency: 72/100. Repeatability is one of the stronger signals in this material profile.
- Stiffness: 85/100. Stiffness is a relative advantage in this comparison group.

### Limitations

- Tensile: 15/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 25/100. Avoid high impact or shock-loaded components without additional validation.
- Layer adhesion: 13/100. 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.
- 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 tensile load applications
- Avoid high impact components

## Metric rankings and percentiles

| Metric         | Score  | Rank      | Percentile      |
|----------------|--------|-----------|-----------------|
| Overall        | 42/100 | 185 / 234 | Better than 21% |
| Tensile        | 15/100 | 211 / 226 | Better than 7%  |
| Impact         | 25/100 | 91 / 226  | Better than 60% |
| Stiffness      | 85/100 | 97 / 223  | Better than 57% |
| Consistency    | 72/100 | 187 / 231 | Better than 19% |
| Layer adhesion | 13/100 | 182 / 226 | Better than 20% |
| Thermal        | 24/100 | 201 / 209 | Better than 4%  |

## 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 |
|------------|----------------------------------------------|--------------|---------|---------|--------|
| 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 | —       | —      |

| MaterialID | Material                          | Manufacturer | Overall | Tensile | Impact |
|------------|-----------------------------------|--------------|---------|---------|--------|
| 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  | —      |
| MAT0122    | Add:North Enhanced PLA Clear      | Add:North    | 59/100  | 40/100  | 10/100 |

## 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](#)