

# Prusa3D Prusament Galaxy Black ASA Black

Material Engineering Report  
MaterialID MAT0012

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

**\$34.00 USD/kg**

## Material identity

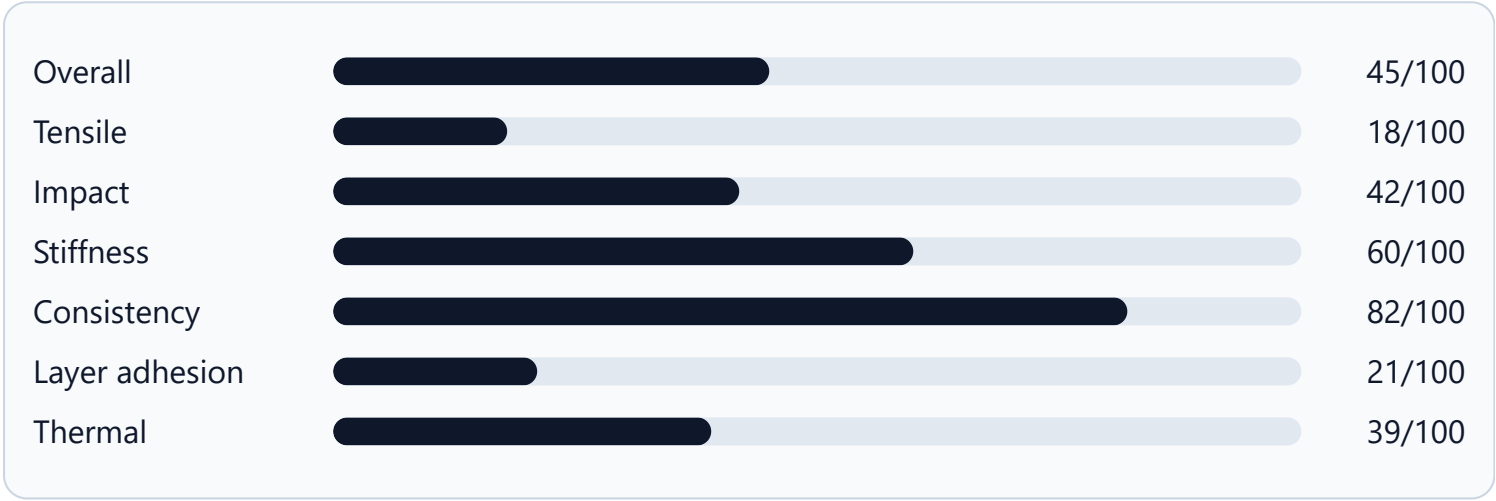
|                  |                                          |
|------------------|------------------------------------------|
| MaterialID       | MAT0012                                  |
| Material         | Prusa3D Prusament Galaxy Black ASA Black |
| Manufacturer     | Prusa3D                                  |
| Product line     | Prusament                                |
| Base material    | ASA                                      |
| Category         | Engineering                              |
| Variant / finish | —                                        |
| Reinforcement    | —                                        |
| Color            | Black                                    |

## Governed engineering profile

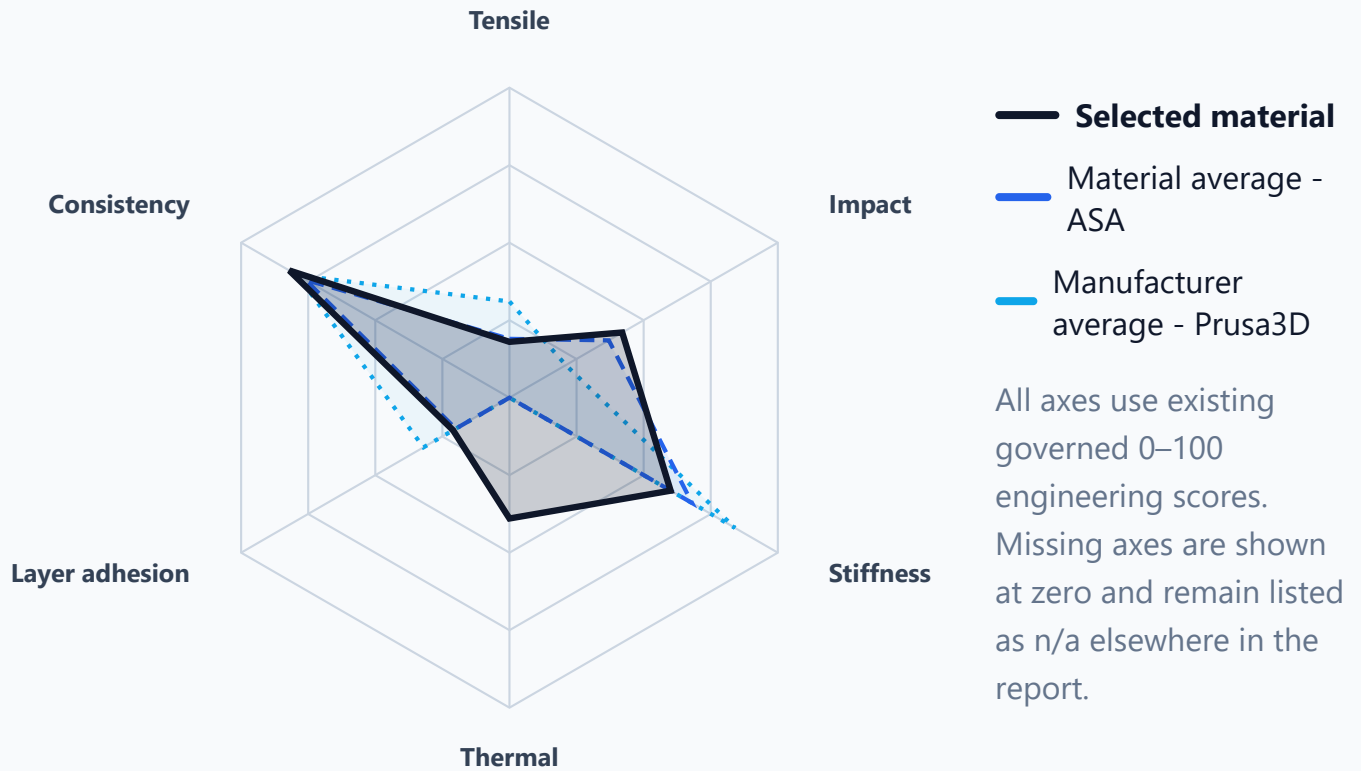
|         |        |
|---------|--------|
| Overall | 45/100 |
| Tensile | 18/100 |

|                     |             |
|---------------------|-------------|
| Impact              | 42/100      |
| Stiffness           | 60/100      |
| Consistency         | 82/100      |
| Layer adhesion      | 21/100      |
| Thermal             | 39/100      |
| Best available axis | consistency |

## Engineering score profile



## Engineering radar



## Fixture thermal result

**77 °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        | 45/100            | 44/100           | 49/100               |
| Tensile        | 18/100            | 19/100           | 31/100               |
| Impact         | 42/100            | 37/100           | 21/100               |
| Stiffness      | 60/100            | 68/100           | 84/100               |
| Consistency    | 82/100            | 76/100           | 79/100               |
| Layer adhesion | 21/100            | 20/100           | 32/100               |
| 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      | 4.968 MPa                 | 1.493 MPa                | 30.1% | 10      | 10/10      |
| Tensile flat         | 23.963 MPa                | 2.08 MPa                 | 8.7%  | 10      | 10/10      |
| Impact upright       | 43.381 kJ/m <sup>2</sup>  | 11.055 kJ/m <sup>2</sup> | 25.5% | 10      | 10/10      |
| Impact flat          | 792.337 kJ/m <sup>2</sup> | 64.901 kJ/m <sup>2</sup> | 8.2%  | 10      | 10/10      |
| Stiffness modulus    | 1808.943 MPa              | —                        | —     | —       | —          |
| Stiffness deflection | 3 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:** Prusa3D Prusament Galaxy Black ASA Black has a specialized or limited engineering profile. It is above its material-family average by 0,4 points and below its manufacturer average by 4,8 points. Its strongest measured axis is Consistency, while the weakest axis is Tensile.

**Data-driven review:** Prusa3D Prusament Galaxy Black ASA 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 37% overall, is roughly aligned with the material-family average, and is below the manufacturer average by 4,8 points. Its strongest engineering signal is Consistency, while Tensile is the main limitation to consider before using it for demanding applications.

BEST FEATURE

Consistency

MAIN LIMITATION

Tensile

DATASET POSITION

Better than 37%  
149 / 234

Strengths

- Consistency: 82/100. Repeatability is one of the stronger signals in this material profile.

Limitations

- Tensile: 18/100. Avoid using this as the primary choice for tensile-loaded parts.
- Layer adhesion: 21/100. 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

- 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 | 45/100 | 149 / 234 | Better than 37% |
| Tensile | 18/100 | 198 / 226 | Better than 13% |
| Impact  | 42/100 | 45 / 226  | Better than 81% |

| Metric         | Score  | Rank      | Percentile      |
|----------------|--------|-----------|-----------------|
| Stiffness      | 60/100 | 184 / 223 | Better than 18% |
| Consistency    | 82/100 | 57 / 231  | Better than 76% |
| Layer adhesion | 21/100 | 137 / 226 | Better than 40% |
| Thermal        | 39/100 | 56 / 209  | Better than 74% |

## 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.

## Better alternatives

| MaterialID | Material                                   | Manufacturer | Overall | Tensile | Impact |
|------------|--------------------------------------------|--------------|---------|---------|--------|
| MAT0014    | Extrudr DuraPro Emerald Green ASA Green    | Extrudr      | 51/100  | 21/100  | 49/100 |
| MAT0015    | Prusa3D Prusament ASA Pro Green            | Prusa3D      | 48/100  | 23/100  | 44/100 |
| MAT0211    | Eryone Standard Black ASA High Speed Black | Eryone       | 48/100  | 19/100  | 50/100 |

## 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 |
|------------|--------------------------------------------|--------------|---------|---------|--------|
| MAT0014    | Extrudr DuraPro Emerald Green ASA Green    | Extrudr      | 51/100  | 21/100  | 49/100 |
| MAT0015    | Prusa3D Prusament ASA Pro Green            | Prusa3D      | 48/100  | 23/100  | 44/100 |
| MAT0211    | Eryone Standard Black ASA High Speed Black | Eryone       | 48/100  | 19/100  | 50/100 |

| MaterialID | Material                         | Manufacturer | Overall | Tensile | Impact |
|------------|----------------------------------|--------------|---------|---------|--------|
| MAT0016    | Extrudr DuraPro ASA Red          | Extrudr      | 48/100  | 19/100  | 50/100 |
| MAT0148    | Thorwell Standard ASA ASA Yellow | Thorwell     | 46/100  | 22/100  | 56/100 |
| MAT0216    | Eryone Standard White ASA White  | Eryone       | 46/100  | 23/100  | 51/100 |
| MAT0017    | Yasin Standard White ASA White   | Yasin        | 46/100  | 21/100  | 51/100 |
| MAT0179    | BambuLab Standard Blue ASA Blue  | BambuLab     | 45/100  | 22/100  | 45/100 |

## Public links

[Manufacturer website](#) [Video review](#) [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](#)