



Extrudr DuraPro ASA CF Black

Material Engineering Report
MaterialID MAT0008

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

\$21.97 USD/kg

Material identity

MaterialID	MAT0008
Material	Extrudr DuraPro ASA CF Black
Manufacturer	Extrudr
Product line	DuraPro
Base material	ASA
Category	Engineering
Variant / finish	—
Reinforcement	CF
Color	Black

Governed engineering profile

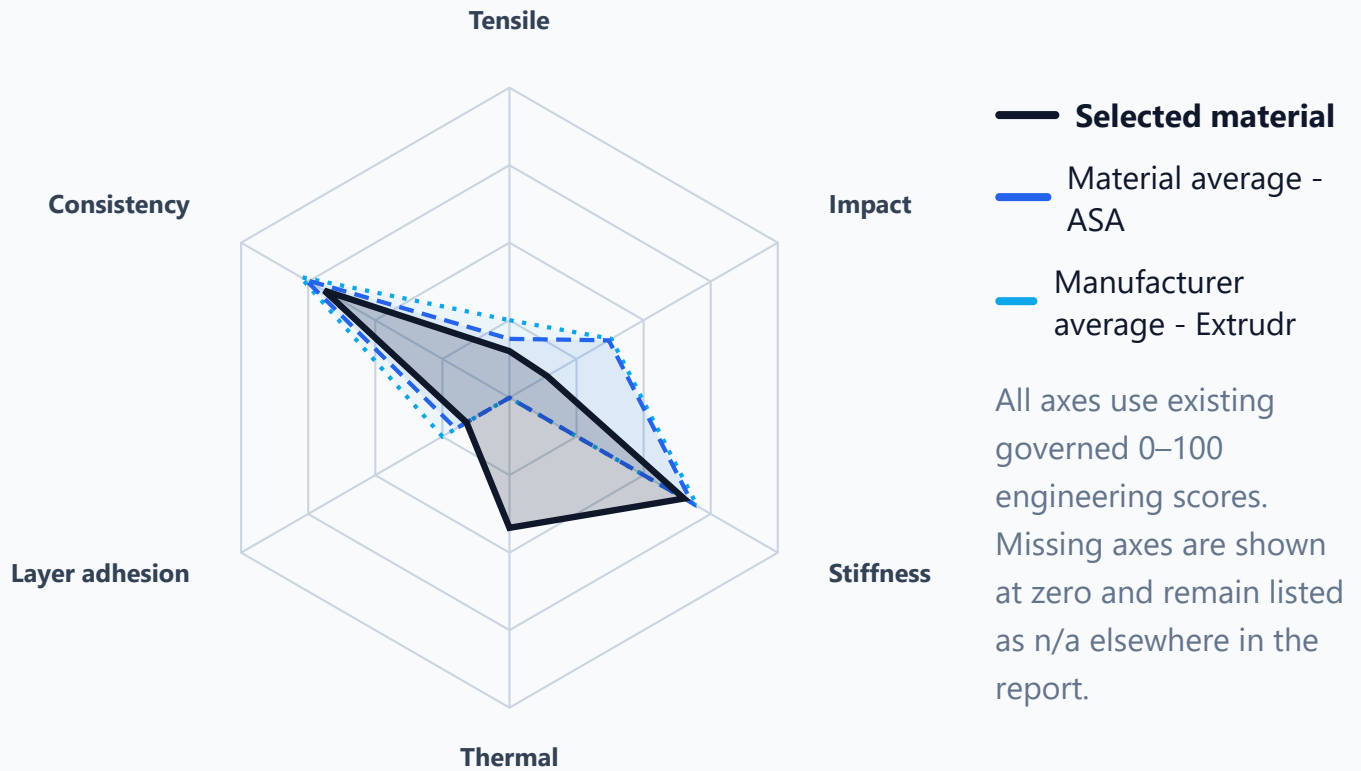
Overall	36/100
Tensile	15/100

Impact	14/100
Stiffness	65/100
Consistency	69/100
Layer adhesion	16/100
Thermal	42/100
Best available axis	consistency

Engineering score profile



Engineering radar



Fixture thermal result

84 °C · score 42/100 · 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	36/100	44/100	47/100
Tensile	15/100	19/100	25/100
Impact	14/100	37/100	38/100
Stiffness	65/100	68/100	70/100
Consistency	69/100	76/100	78/100
Layer adhesion	16/100	20/100	25/100
Thermal	42/100	—	—

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	3.245 MPa	1.835 MPa	56.5%	10	10/10
Tensile flat	20.195 MPa	4.787 MPa	23.7%	10	10/10
Impact upright	72.057 kJ/m ²	28.511 kJ/m ²	39.6%	10	10/10
Impact flat	214.507 kJ/m ²	12.841 kJ/m ²	6%	10	10/10
Stiffness modulus	1962.896 MPa	—	—	—	—
Stiffness deflection	2.765 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	2026-08-25

Engineering interpretation

Summary: Extrudr DuraPro ASA CF Black has a specialized or limited engineering profile. It is below its material-family average by 8,4 points and below its manufacturer average by 11,4 points. Its strongest measured axis is Consistency, while the weakest axis is Impact.

Data-driven review: Extrudr DuraPro ASA CF 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 4% overall, is below the material-family average by 8,4 points, and is below the manufacturer average by 11,4 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 4%
226 / 234

Strengths

- Best available signal: Consistency at 69/100.

Limitations

- Tensile: 15/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 14/100. Avoid high impact or shock-loaded components without additional validation.
- Layer adhesion: 16/100. 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	36/100	226 / 234	Better than 4%

Metric	Score	Rank	Percentile
Tensile	15/100	217 / 226	Better than 4%
Impact	14/100	187 / 226	Better than 18%
Stiffness	65/100	168 / 223	Better than 25%
Consistency	69/100	206 / 231	Better than 11%
Layer adhesion	16/100	162 / 226	Better than 29%
Thermal	42/100	37 / 209	Better than 83%

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
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

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
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
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](#) [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](#)