

Spectrum Premium Forest Green ABS Green

Material Engineering Report
MaterialID MAT0228

3DP Iceland Engineering Platform
3DP Iceland Labs
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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

\$35.92 USD/kg

Material identity

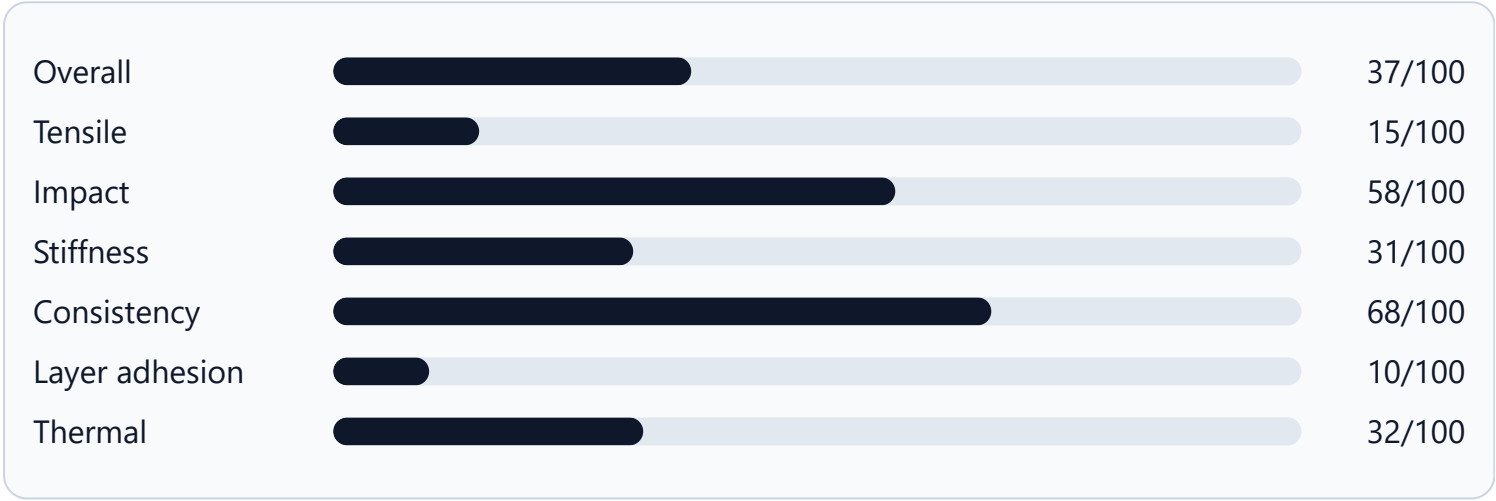
MaterialID	MAT0228
Material	Spectrum Premium Forest Green ABS Green
Manufacturer	Spectrum
Product line	Premium
Base material	ABS
Category	Engineering
Variant / finish	—
Reinforcement	—
Color	Green

Governed engineering profile

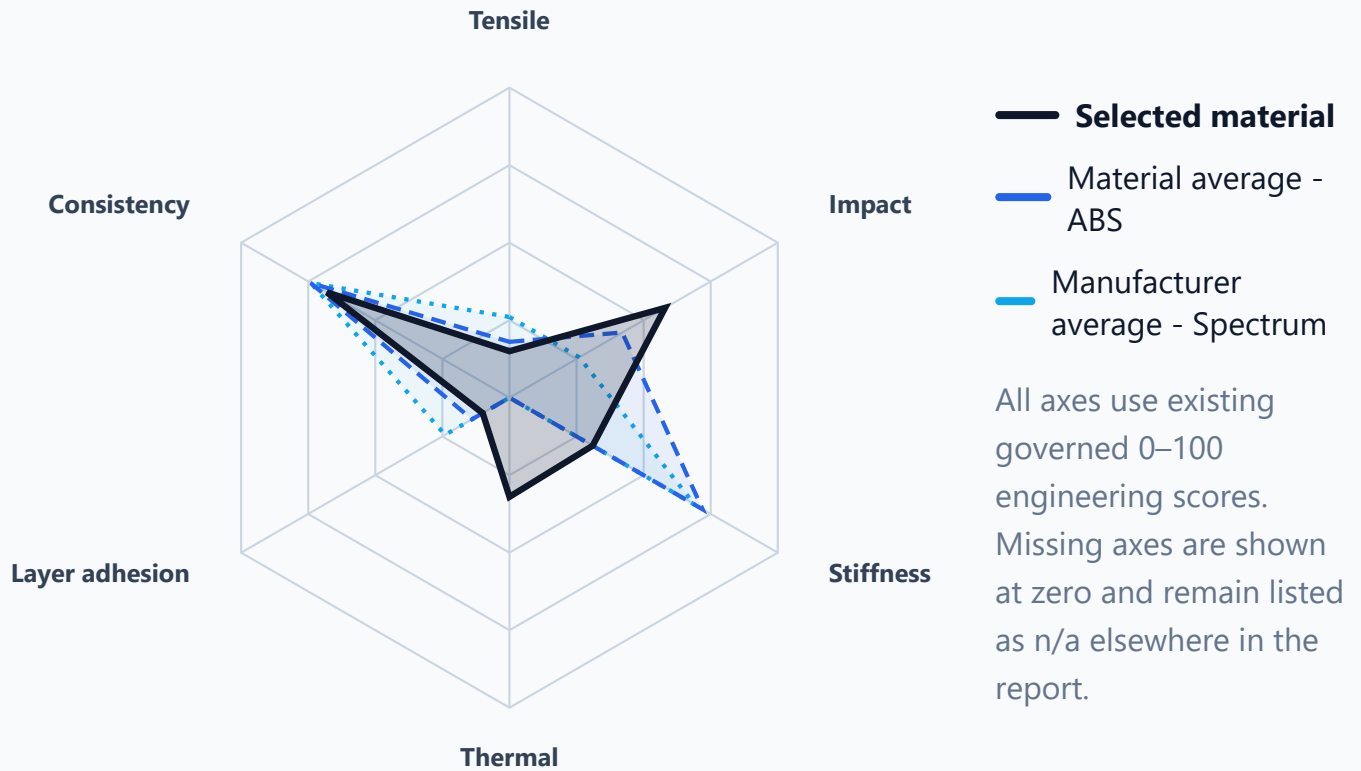
Overall	37/100
Tensile	15/100

Impact	58/100
Stiffness	31/100
Consistency	68/100
Layer adhesion	10/100
Thermal	32/100
Best available axis	consistency

Engineering score profile



Engineering radar



Fixture thermal result

64 °C · score 32/100 · 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	45/100	44/100
Tensile	15/100	18/100	26/100
Impact	58/100	42/100	26/100
Stiffness	31/100	72/100	69/100
Consistency	68/100	74/100	74/100
Layer adhesion	10/100	14/100	24/100
Thermal	32/100	—	—

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	2.249 MPa	1.598 MPa	71.1%	8	8/10
Tensile flat	21.456 MPa	5.747 MPa	26.8%	10	10/10
Impact upright	127.194 kJ/m ²	27.041 kJ/m ²	21.3%	10	10/10
Impact flat	1041.865 kJ/m ²	75.928 kJ/m ²	7.3%	10	10/10
Stiffness modulus	941.389 MPa	—	—	—	—
Stiffness deflection	5.764 mm	—	—	—	—

Measurement provenance

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

Module	Measured date
Tensile	2026-08-15
Impact	2026-08-16
Stiffness	2026-08-15
Thermal	2026-08-15

Engineering interpretation

Summary: Spectrum Premium Forest Green ABS Green has a specialized or limited engineering profile. It is below its material-family average by 8,1 points and below its manufacturer average by 7 points. Its strongest measured axis is Consistency, while the weakest axis is Layer Adhesion.

Data-driven review: Spectrum Premium Forest Green ABS 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 8,1 points, and is below the manufacturer average by 7 points. Its strongest engineering signal is Consistency, while Layer Adhesion is the main limitation to consider before using it for demanding applications.

BEST FEATURE

Consistency

MAIN LIMITATION

Layer Adhesion

DATASET POSITION

Better than 6%
222 / 234

Strengths

- Impact: 58/100. Impact behavior is competitive against the material-family context.

Limitations

- Tensile: 15/100. Avoid using this as the primary choice for tensile-loaded parts.
- Stiffness: 31/100. Expect less shape stability than the stronger materials in the same family.
- Layer adhesion: 10/100. 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

Metric rankings and percentiles

Metric	Score	Rank	Percentile
Overall	37/100	222 / 234	Better than 6%

Metric	Score	Rank	Percentile
Tensile	15/100	214 / 226	Better than 6%
Impact	58/100	8 / 226	Better than 97%
Stiffness	31/100	221 / 223	Better than 1%
Consistency	68/100	210 / 231	Better than 10%
Layer adhesion	10/100	200 / 226	Better than 12%
Thermal	32/100	79 / 209	Better than 63%

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
MAT0006	Prima Creator PrimaValue Dark Gray ABS Gray	Prima Creator	52/100	24/100	54/100
MAT0202	Siraya Tech Fiberheart White ABS High Temp White	Siraya Tech	49/100	21/100	54/100
MAT0207	Siraya Tech Fiberheart Black ABS Core CF Black	Siraya Tech	49/100	24/100	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
MAT0006	Prima Creator PrimaValue Dark Gray ABS Gray	Prima Creator	52/100	24/100	54/100

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0202	Siraya Tech Fiberheart White ABS High Temp White	Siraya Tech	49/100	21/100	54/100
MAT0207	Siraya Tech Fiberheart Black ABS Core CF Black	Siraya Tech	49/100	24/100	27/100
MAT0003	Prusa3D Buddy3D ABS Black	Prusa3D	48/100	19/100	53/100
MAT0007	FilaFarm Standard ABS Orange	FilaFarm	47/100	—	41/100
MAT0152	Thorwell Standard ABS ABS Yellow	Thorwell	47/100	20/100	53/100
MAT0181	BambuLab Standard Blue ABS Blue	BambuLab	46/100	19/100	53/100
MAT0005	Extrudr DuraPro ABS Blue	Extrudr	44/100	16/100	47/100

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](#)