

TECHNICAL DATA SHEET

Volcano PLA 150C

Date of issue: 19-06-2025 / Date of update: 19-06-2025

Product specifications

Volcano PLA 150C is a next-generation bio-performance material engineered for high-demand applications. Designed to exceed the mechanical strength and thermal resistance of many traditional oil-based polymers, it sets a new standard in sustainable engineering-grade filaments.

As the name suggests, Volcano PLA 150C features an outstanding long term heat resistance of 150 °C, achieved without annealing or post-processing, for non-load-bearing parts. This makes Volcano PLA 150C ideal for functional prototypes and end-use components exposed to elevated temperatures.

Manufactured from 100% renewable resources, Volcano PLA 150C is fully compostable and environmentally responsible. It delivers an exceptional balance of rigidity, high impact resistance, and superior heat tolerance—all while maintaining the printability and ease of use of standard PLA. No specialized equipment is required to achieve high-quality results.

Choose Volcano PLA 150C for professional-grade 3D printing applications that demand performance, reliability, and sustainability.

Important key features

- Thermal stability up to 150 °C without annealing.
- High stiffness, toughness, and heat resistance.
- Semi-matte surface finish.
- 100% sustainable, oil-free, and compostable.
- Biodegradable according DIN EN 13432.

Suitable applications

- High-temperature functional parts.
- Heat-resistant fixtures or tools.
- Engineering prototypes.
- Durable and sustainable end-use parts.
- Automotive components.

Recommended print settings

Nozzle temp: 195 - 225°C

Print speed: 25 - 200 mm/s

Drying: Not necessary

Experience level: Beginner

Heat bed: 45 - 65°C

Nozzle: ≥ 0.15mm

Drybox: Not necessary

Fan speed: 50 - 100%

Buildplate adhesion: EasyFix Nr. I

Enclosure: Not necessary

Material properties

Density (23°C)

Typical value

1,2 g/cm³

Test Method

ISO 1183

Mechanical properties

Tensile strength at yield

43 MPa

ISO 527

Tensile strength at break

28 MPa

ISO 527

Elongation at break

11%

ISO 527

Tensile modulus

2500 MPa

ISO 527

Flexural modulus

3300 MPa

ISO 178

Impact strength (Charpy unnotched at 23 °C)

15 kJ/m²

ISO 179

Impact strength (Charpy notched at 23 °C)

2 kJ/m²

ISO 179

Impact strength (Charpy unnotched at -30 °C)

13 kJ/m²

ISO 179

Thermal properties

HDT B

110 °C

ISO 75

Vicat softening point

140 °C

ISO 306

Long term heat resistance (without load)

150 °C

In house

Crystallization temperature

105 °C

DSC

Melting point

170 °C

DSC



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Buildplate adhesion

For optimal buildplate adhesion we recommend to set your buildplate temperature at 45°C - 65°C and to use our EasyFix Adhesive – Nr. I.

DIY colors

Volcano PLA 150C comes in various “DIY colors” that are inspired by iconic tooling colors of tools that can be found in your local and online Do It Yourself (DIY) stores. These colors are developed for everyone who wants to enhance their tooling collection with custom 3D printed accessories. Volcano PLA 150C and its DIY colors is not in any way affiliated with or sponsored by any tooling brand associated with these DIY colors.

Storage and handling

Filament should be stored at room temperature in a dry and dark place with humidity below 15%. Recommended storage temperature is ca. 18-25°C (64.4 -77.0°F). Keep out of moisture, sunlight and direct heat. When stored properly, product has a shelf life of 24 months

Product export information

HS Code	Description	Origin
39169090	Monofilament for 3D printing	European Union

Disclaimer

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