



TECHNICAL DATA SHEET

PLA BASIC CF

1. DESCRIPTION

PLA Basic CF combines the user-friendly nature of PLA with the enhanced stiffness and technical appearance of carbon fiber reinforcement. It's the perfect choice for users who want a reliable, warp-free filament with improved mechanical properties – without needing complex printer setups. Thanks to the carbon fiber content, PLA Basic CF offers significantly higher rigidity and a matte, premium finish with a technical feel. At the same time, it remains just as easy to print as regular PLA, making it ideal for functional parts, design projects, and everyday prototyping.

2. FEATURES

- Easy to print – even without a heated bed
- Increased stiffness and dimensional stability due to carbon fiber
- Matte, professional surface with a technical look
- No warping, no shrinkage
- Compatible with most FDM printers

3. PROPERTIES

TEST	METHOD	UNIT	VALUE	PRINT SETTINGS
Tensile modulus (E-Modulus)	ASTM D882	MPa	500 (3,5)	Nozzle 200-230°C
Tensile strength	ASTM D882	MPa	53	Heatbed 20-60°C
Stress at break	ASTM D882	MPa	60	Adhesive not required
Nominal elongation at break	ASTM D882	%	6	Speed 20-200mm/s
Notched impact strength	ASTM D256	kJ/m ²	0,3	Cooling 30-100%
HDT	ASTM E2092	°C	55*	Enclosed Space no
Melting temperature	ISO 3146-C	°C	180-200	Hardened Nozzle yes
MFR	ASTM D1238	g/10min	6	Max. Volumetric Speed 21 mm ³ /s
Shrinking	ASTM D955	%	0,4	
Density	ASTM D792	g/cm ³	1,24	

*Temperature resistance tested at a minimum wall thickness of 4 mm.

Note: As with all carbon fiber-reinforced materials, we recommend using a hardened nozzle (e.g., hardened steel or ruby nozzle). A nozzle diameter of at least 0.6 mm is also recommended to ensure smooth and reliable extrusion.

4. CERTIFICATIONS & ADDITIONAL INFORMATION



Certifications depend on colors in final product. More info in the additional information sheet.

5. STORAGE AND SHELF LIFE

Store in a dry room at room temperature (18-27°C / 65-80°F). Keep out of direct heat and sunlight.

When stored correctly, this material has a shelf life of 2 years.

Additional info in our regulatory, additional information and chemical resistance data sheets.