



TECHNICAL DATA SHEET

DURAPRO ABS CF

1. DESCRIPTION

DuraPro ABS CF is a carbon fiber-reinforced high-performance ABS filament designed for technical applications where maximum stiffness, dimensional stability, and heat resistance are required. The addition of carbon fibers significantly increases the material's mechanical strength and improves its thermal performance compared to standard ABS. Despite the reinforcement, the filament is easy to print and delivers precise, matte surface finishes with a professional, technical look and feel. Thanks to its low warping tendency, DuraPro ABS CF is ideal for functional parts, prototypes, and use in mechanical engineering.

2. FEATURES

- High stiffness and mechanical strength due to carbon fiber reinforcement
- Heat resistant up to 100 °C
- Excellent dimensional stability and low warping
- Matte, high-quality surface with a technical finish
- Good chemical resistance
- Lighter than standard ABS with enhanced performance

3. PROPERTIES

TEST	METHOD	UNIT	VALUE	PRINT SETTINGS	
Flexural modulus (E-Modulus)	ASTM D790	MPa	3400	Nozzle	220-250°C
Flexural strength	ASTM D790	MPa	65	Heatbed	100-110°C
Tensile modulus (E-Modulus)	ASTM D638	MPa	2850	Adhesive	recommended
Tensile strength	ASTM D638	MPa	55	Speed	20-200mm/s
Elongation at yield	ASTM D638	%	3	Cooling	0-50%
Nominal elongation at break	ASTM D638	%	8	Enclosed Space	yes
Notched impact strength	ASTM D256	kJ/m ²	250°C	Hardened Nozzle	yes
Unnotched impact strength	ASTM D256	kJ/m ²	110°C	Max. Volumetric Speed	16 mm ³ /s
VICAT A (VST)	ASTM D1525	°C	95*	Note: Due to the abrasive nature of the carbon fibers, a hardened nozzle (e.g., hardened steel or ruby nozzle) is strongly recommended. Additionally, a nozzle diameter of at least 0.6 mm should be used to prevent clogging and ensure smooth extrusion.	
Melting temperature	ISO 3146-C	°C	180-200		
MFR	ASTM D1238	g/cm ³	19		
HDT/B	ASTM D648	°C	88		
Shrinking	ASTM D955	%	0,3		
Density	ASTM D792	g/cm ³	1.04		
Hardness Rockwell	ASTM D785	R-Skala	120		

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

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.