

CR-PLA Carbon Filament Technical Data Sheet

Version 1.0

1. Product introduction

The CR-PLA Carbon filament is a type of 3D printing filament developed based on PLA. Compared to regular PLA filaments, it offers higher rigidity and hardness, resulting in a matte texture on printed models with minimal visible layering. Additionally, it shares characteristics such as reduced warping and stable dimensions typical of PLA prints.

2. Physical Performance Parameters

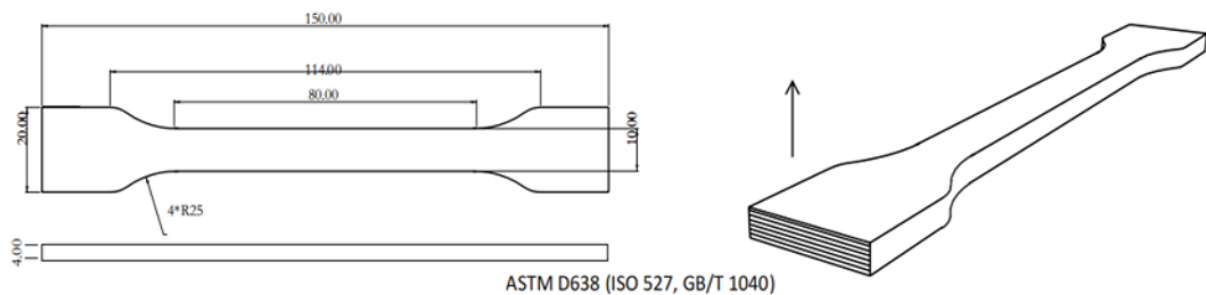
Items	Testing Criteria	Parameters
Density	ASTM D792 (ISO 1183, GB/T 1033)	1.24 ±0.1 (g/cm ³ at 21.5°C)
Melt index	190°C, 2.16kg	4 (g/10 min)

3. Mechanical Performance Parameters

Items	Testing Criteria	Parameters
Tensile strength (X-Y)	ASTM D638 (ISO 527, GB/T 1040)	101 (MPa)
Elongation at break (X-Y)	ASTM D638 (ISO 527, GB/T 1040)	6 (%)
Bending strength (X-Y)	ASTM D790 (ISO 178, GB/T 9341)	45 (MPa)
Charpy impact strength (X-Y)	ASTM D256 (ISO 179, GB/T 1043)	8 (kJ/m ²)

Printing parameters and styles of printing conditions:

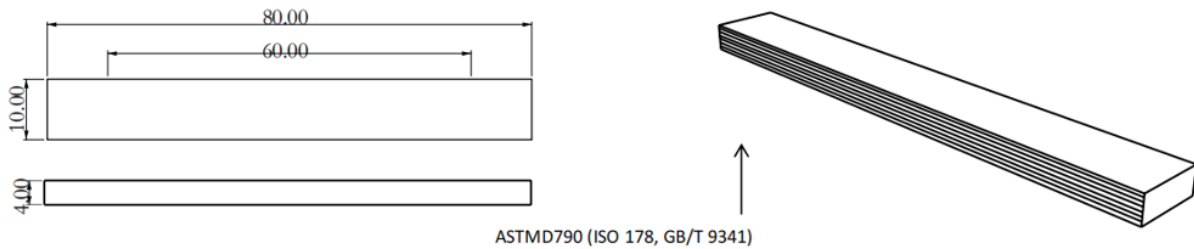
Print Conditions	Parameters
Nozzle Temperature	220°C
Hot Bed Temperature	50°C
Printing Speed	50mm/s
Infill	100%



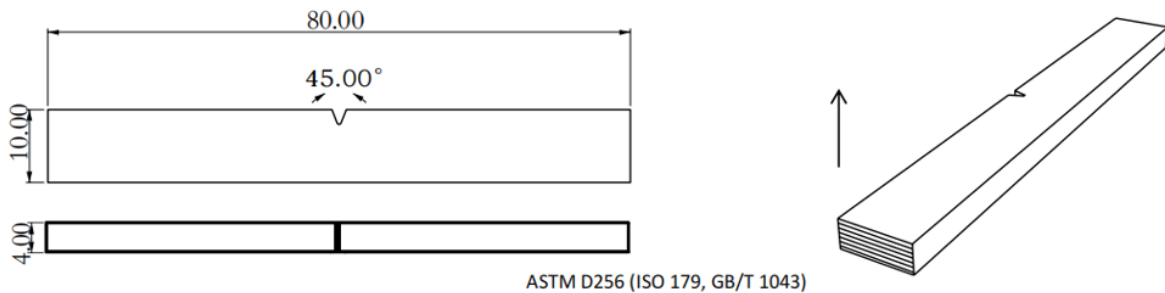
1

CR-PLA Carbon Filament Technical Data Sheet

Version 1.0



2



3

4. Recommended printing conditions

Print Temperature	Hot bed Temperature	Ambient Temperature	Print Speed	Pumping Distance	Cooling fan
190-230°C	Unheated -60°C	Less than 60°C	40-80mm/s	3-8mm	100%

5. Compatible Models

CR-PLA Carbon is widely used in FDM 3D printers on the market.

6. Storage Condition

Please place this product in a dry and ventilated environment, avoiding high temperatures, direct sunlight, or humid conditions. If it is not used up shortly after opening, it is recommended to store it with a drying box for future use.

7. Disclaimer

The values given in this data sheet are for reference and comparison only. Actual values may vary with printing conditions, and the end-use performance of printed models depends on model design, environmental conditions, printing conditions, etc.