

CR-ABS Filament Technical Data Sheet

Version 1.0

1. Product introduction

CR-ABS is a heat and impact-resistant filament. Decreasing the shrink rate, lowers the chance of warping and layer separation, increasing the chance of successful printing. Recommend to use along with fully enclosed printers or with Creality enclosure.

2. Physical Performance Parameters

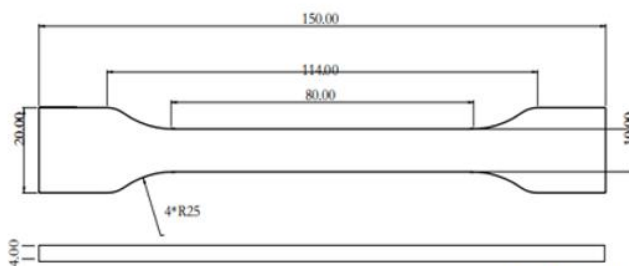
Items	Testing Criteria	Parameters
Density	ASTM D792 (ISO 1183, GB/T 1033)	1.05 ±0.1 (g/cm ³ at 21.5°C)
Vicat Softening Temperature	220°C, 10 kg	12-15 (g/10 min)

3. Mechanical Performance Parameters

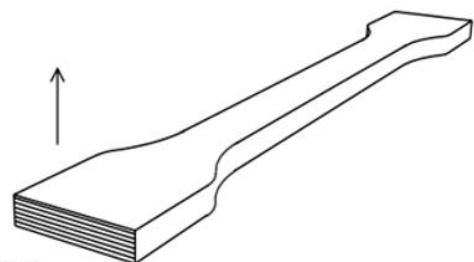
Items	Testing Criteria	Parameters
Tensile strength (X-Y)	ASTM D638 (ISO 527, GB/T 1040)	31.26 (MPa)
Tensile strength (Z)	ASTM D638 (ISO 527, GB/T 1040)	11.75(MPa)
Elongation at break (X-Y)	ASTM D638 (ISO 527, GB/T 1040)	12.43(%)
Elongation at break (Z)	ASTM D638 (ISO 527, GB/T 1040)	3.73(%)
Bending strength (X-Y)	ASTMD790 (ISO 178, GB/T 9341)	68 (MPa)
Charpy impact strength (X-Y)	ASTM D256 (ISO 179, GB/T 1043)	38(kJ/m ²)
Charpy impact strength (Z)	ASTM D256 (ISO 179, GB/T 1043)	20(kJ/m ²)

Parameters and styles of sample printing conditions:

Print Conditions	Parameters
Nozzle Temperature	250°C
Hot Bed Temperature	100°C
Printing Speed	50mm/s
Infill	100%



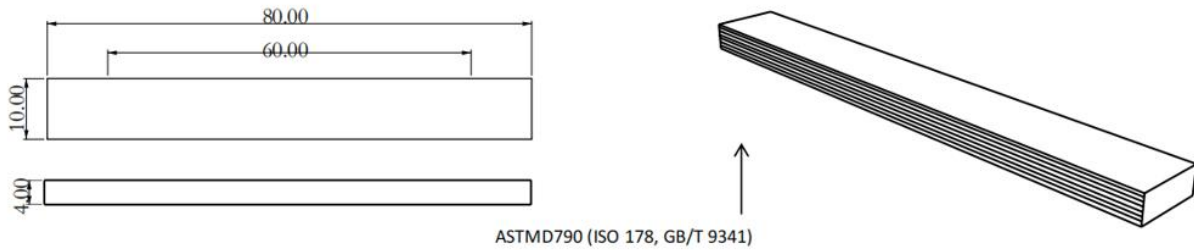
ASTM D638 (ISO 527, GB/T 1040)



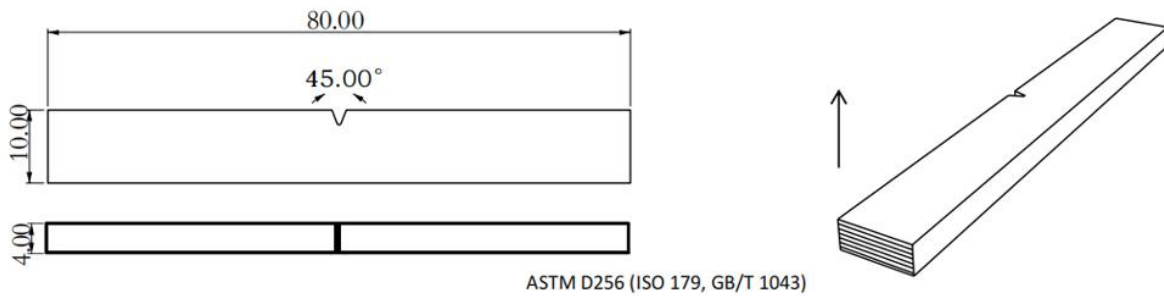
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4. Recommended Printing Parameters

Print Temperature	Hotbed Temperature	Ambient Temperature	Print Speed	Pumping Distance
220-260°C	90-110°C	60-80°C	40-80mm/s	3-8mm

5. Compatible Models

CR-ABS is recommended to be used in FDM printers with closed measures. If it is an open printer, it is recommended to use with Creality thermal insulation cover.

6. Storage Condition

Please place this product in a dry and ventilated environment, not in an environment of high temperature, sunny or humid conditions. If it is not used up within a short time after opening, it is recommended to use it with a dry box when using it again.

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.