

PolyCore PETG-1100

Technical Data Sheet (Ver. 1.0, last updated: June, 2020)

PolyCore PETG-1100 offers better mechanical properties than any other regular PETG making it a good candidate for a wide range of applications.

Physical Properties

Property	Testing Method	Typical Value
Density (g/cm ³ at 21.5 °C)	ASTM D792 (ISO 1183, GB/T 1033)	1.3
Melt index (g/10 min)	220 °C, 2.16 kg 240 °C, 2.16 kg	3.9 17.1
Glass transition temperature (°C)	DSC, 10 °C/min	79.0
Vicat Softening temperature ¹ (°C)	ASTM D1525 (ISO 306 GB/T 1633)	82.0

Tested with 3D printed specimen of 100% infill

Mechanical Properties¹

Property	Testing Method	Typical Value
Young's modulus (MPa)	ASTM D638 (ISO527, GB/T 1040)	1523 ± 50
Tensile strength (MPa)	ASTM D638 (ISO527, GB/T 1040)	31.7 ± 0.1
Elongation at break (%)	ASTM D638 (ISO527, GB/T 1040)	4.4 ± 0.6
Bending modulus (MPa)	ASTM D790 (ISO 178, GB/T 9341)	1068 ± 94
Bending strength (MPa)	ASTM D790 (ISO 178, GB/T 9341)	59.0 ± 1.0
Charpy Impact strength (kJ/m ²)	ASTM D256 (ISO 179, GB/T 1043)	9.7 ± 2.6

All testing specimens were printed under the following conditions:

nozzle temperature = 240 °C, printing speed = 45 mm/s, build plate temperature = 80 °C, infill = 100%

Recommended Printing Conditions¹

Parameter	Recommended Setting
Drying temperature (°C)	70
Drying Time (h)	4-6
Maximum moisture content (%)	0.2
Barrel – zone 1 temperature (°C)	210 - 230
Barrel – zone 2 temperature (°C)	220 - 240
Barrel – zone 3 temperature (°C)	220 - 240
Nozzle temperature (°C)	230
Bed temperature (°C)	80
Other Comments	

Disclaimer

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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