

PolyCore PC-7200

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

PolyCore PC-7200 is PC pellets featured with excellent flame retardance (UL94 V-0/0.75mm) and toughness mainly designed for Medium Area Additive Manufacturing (MAAM) technology.

Physical Properties

Property	Testing Method	Typical Value
Density (g/cm ³ at 21.5 °C)	ASTM D792 (ISO 1183, GB/T 1033)	1.2
Melt index (g/10 min)	300 °C, 1.2 kg	16
Glass transition temperature (°C)	DSC, 10 °C/min	115
Vicat Softening temperature (°C)	ASTM D1525 (ISO 306 GB/T 1633)	116
Burning behavior	UL 94	V-0 (0.75mm)
Oxygen index (%)	ISO 4589-2, Method A	35

Mechanical Properties¹

Property	Testing Method	Typical Value
Young's modulus (MPa)	ASTM D638 (ISO 527, GB/T 1040)	2600
Tensile strength (MPa)	ASTM D638 (ISO527, GB/T 1040)	68
Elongation at break (%)	ASTM D638 (ISO527, GB/T 1040)	4.8
Bending modulus (MPa)	ASTM D790 (ISO 178, GB/T 9341)	2600
Bending strength (MPa)	ASTM D790 (ISO 178, GB/T 9341)	100
Charpy Impact strength (kJ/m ²)	ASTM D256 (ISO 179, GB/T 1043)	7.5

1. Tested with injection molding specimens

Recommended Printing Conditions

Parameter	Recommended Setting
Air drying temperature (°C)	90
Air drying time (h)	4
Maximum moisture content (%)	0.02
Barrel – zone 1 temperature (°C)	230 - 240
Barrel – zone 2 temperature (°C)	240 - 250
Barrel – zone 3 temperature (°C)	250 – 265
Nozzle temperature (°C)	245 – 265
Bed temperature (°C)	Room temperature - 110
Other Comments	
<ul style="list-style-type: none"> ● It is recommended to stop feeding and continue extruding until the extruder is fully empty, if the printing stops in a short term, such as 10-30 min ● It is recommended to stop feeding and continue extruding until the extruder is fully empty, then use polyethylene (PE) to clean the extruder, if the printing stop in a long term, such as several hours. It is helpful to avoid the carbonization of material and keep extruder working in a good condition 	

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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