

EON PC

Polycarbonate is a polymer known for its resistance and mechanical durability, toughness and ability to withstand high temperatures. It is therefore used to produce prototypes and functional parts as well as components subject to mechanical and thermal challenges.

Mechanical Properties	Horizontal	Vertical xz	Method
Tensile Yield Strength	63 ± 1 MPa	63 ± 1 MPa	ISO 527-1
Tensile Modulus	1,9 ± 0,1 GPa	2,0 ± 0,1 GPa	
Elongation at Yield Point	5,8 ± 0,3 %	5,8 ± 0,2 %	
Flexural Strength	88 ± 1 MPa	94 ± 2 MPa	ISO 178
Flexural Modulus	2,1 ± 0,1 GPa	2,2 ± 0,1 GPa	
Deflection at Flexural Strength	11,0 ± 0,2 mm	10,7 ± 0,2 mm	
Impact Strength Charpy (1)	No Break kJ/m ²	No Break kJ/m ²	ISO 179-1
Impact Strength Charpy Notched	12 ± 1 kJ/m ²	12 ± 1 kJ/m ²	

Thermal Properties	Typical Value	Method
Heat Deflection Temperature (0,45 MPa)	113° C	ISO 75
Heat Deflection Temperature (1,80 MPa)	93° C	

Other Properties	Typical Value	Method
Moisture Absorption in 7 days (2)	0,15 %	ISO 62
Density	1,22 g/cm ³	ISO 1183
Hardness	79	ISO 868

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Print Settings:

Print settings 0,20 mm FAST (layers 0,20 mm);

Solid Layers Top: 0 Bottom: 0;

Perimeters: 2;

Infill 100% rectilinear;

Infill Print Speed 200 mm/s;

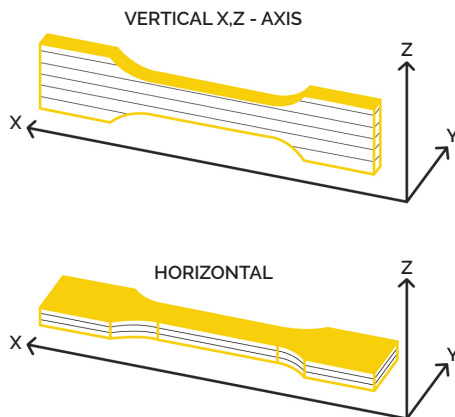
Nozzle Temperature 275 °C all layers;

Bed temperature 115 °C all layers;

Extrusion multiplier 1,034;

Print cooling off;

Other parameters are set as default.



Notes:

- 1) Charpy Unnotched – Edgewise direction of blow according to ISO 179-1
- 2) 24° C; Humidity 22 %

Disclaimer:

The results presented in this data sheet are just for your information and comparison. Values are significantly dependent on print settings, operator experiences, and surrounding conditions. Everyone has to consider suitability and possible consequences of printed parts usage.