



PRODUCT CARD

PLA



exceptionally
easy to print



ready to use on
almost any type of
FDM printer



high stiffness



made with raw
materials approved for
food contact

1. GENERAL INFORMATION ABOUT THE PRODUCT

PLA (polylactide) is one of the most popular and common material in 3D printing. It is odorless and biodegradable. It is recommended by most producers as a starting material – it has low shrinkage and it doesn't require special glue and bed heating, which makes it very easy to print.

Main PLA features:

- very easy to print,
- ready to use in almost every FDM 3D Printer,
- high stiffness,
- low temperature and chemical resistance.

2. TECHNICAL PARAMETERS

CHARACTERISTICS	TEST METHOD	TEST CONDITIONS	IU	VALUE
	ASTM			
PHYSICAL				
Density	D792	-	g/cm ³	1.24
MECHANICAL				
Tensile strength	D882	-	MPa	60
Breaking stress	D882	-	MPa	53

Elongation at break	D882	-	%	6
Modulus of flexibility	D882	-	GPa	3,6
Bending strength	D790	-	MPa	83
Modulus of elasticity	D790	-	GPa	3.8
Notched impact strength, IZOD	D256	-	J/m	16
THERMAL				
Deflection temperature under load	E2092	0,45 MPa	°C	55

Tests have been done in 23°C, if it's not marked differently.

3. RECOMMENDATION OF PRINTING

PLA does not require drying before using. Satisfying results could be achieved by using standard settings for PLA in available slicers and printers.

Cooling during printing is recommended.

Recommended parameters of printing:

Hotend temperature	200 - 230 °C
Bed temperature	50 - 60 °C
Print speed	< 300 mm/s

4. SAFETY NOTES

Exhaust fan is recommended.

Air filters in printer is recommended.

PLA needs to be used only in well ventilated conditions.

Inhaling fumes generated during the printing must be avoided.

Generating fumes during the printing depends mainly on printing temperature. In case of visibly raising emission level, the printing needs to end. Check the hotend temperature and efficiency of the control system before using it next time.

In proper using conditions, the product doesn't endanger health.

It's forbidden to set fire or exceed decomposition temperature!

Decomposition of PLA is typically over 250 °C and it should be strictly avoided.

Main ingredient of decomposition is lactide.

Detailed safety information available in SDS.