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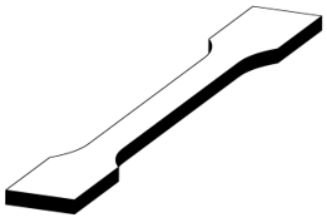
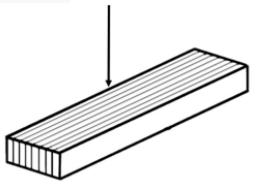
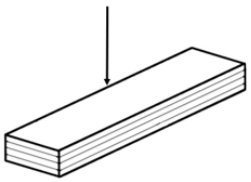
Technical Data Sheet

PLA HT

Polylactid Acid Compound

Phisical Properties	Value	Standard
Density	1,25 g/cm^3	ASTM D729

Mechanical Properties			
TENSILE TEST - STANDARD ISO 527			
Test specimens printed on Ultimaker 2+ with the following setup: • Nozzle type: Standard Brass • Nozzle Temperature: 210 °C • Heat bed Temp: 35 °C • Print speed: 50 mm/s • Infill orientation: 45°	**xy** 		
INFILL	**15%**	**50%**	**100%**
Tensile Strength (Mpa)	22.7	27	40.8
Elastic Modulus (Mpa)	1559	1748	2436
Elongation at break (%)	3.72	4.48	4.64
Energy at break (J)	2.46	3.72	5.84

FLEXURAL TEST - STANDARD ISO 178				
Test specimens printed on Ultimaker 2+ with the following setup: • Nozzle type: Standard Brass • Nozzle Temperature: 210 °C • Heat bed Temp: 35 °C • Print speed: 50 mm/s • Infill orientation: 45°	**zy - parallel** 		**xy - normal** 	
INFILL	**50%**	**100%**	**50%**	**100%**
Flexural Strength (Mpa)	73.6	91.8	72.6	90.9
Flexural Modulus (Mpa)	2488	2820	2406	2828
Deformation (%)	3.25	4.06	3.93	4.23

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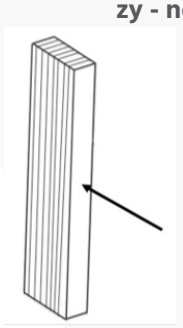
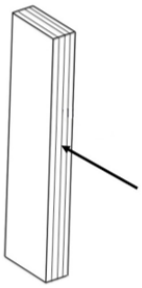
PLA HT

Polylactid Acid Compound

IMPACT TEST IZOD - STANDARD ISO 180				
Test specimens printed on Ultimaker 2+ with the following setup: • Nozzle type: Standard Brass • Nozzle Temperature: 210 °C • Heat bed Temp: 35 °C • Print speed: 50 mm/s • Infill orientation: 45°	zy - normal 		xy - parallel 	
INFILL	**50%**	**100%**	**50%**	**100%**
Impact Strength (KJ/m²)	14.35	23.70	14.08	25.31
Impact Energy (J)	0.57	0.98	0.56	1.01

Thermal Properties	Value	Standard
Melting Point	165-180 °C	ASTM D3418
Heat Deflection Temp.	>100 °C (after post-annealing)	ASTM D684
Glass Transition Temperature	55-60 °C	ASTM D3518

Remarks	Value	Standard
Post-annealing Guideline	20 minutes at 110 °C	-

Filament specifications and print settings	
Diameter 1.75mm	1.75 ± 0.05 mm
Diameter 2.85mm	2.85 ± 0.05 mm
Roundness Deviation	max 2%
Suggested Print Temperature	190 – 220 °C
Suggested Print Speed	40 – 85 mm/s
Suggested Bed Temperature	30 – 50 °C