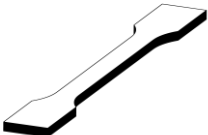


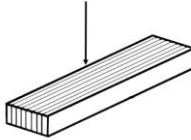
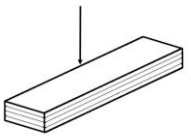
Technical Data Sheet

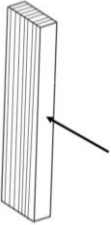
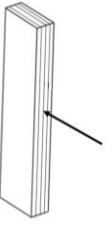
PETG

IDENTIFICATION	
Commercial name	PETG Filament
Raw Material	PETG
Use	3D printing applications

PHYSICAL PROPERTIES	VALUE	STANDARD
Density	1,27 g/cc	ASTM D792

MECHANICAL PROPERTIES			
TENSILE TEST – STANDARD ISO 527			
Test specimens printed on Ultimaker 2+ with the following setup: <ul style="list-style-type: none"> - Nozzle type: Standard Brass 0.4 - Nozzle Temperature: 230 °C - Heat bed Temp: 85 °C - Print speed: 30 mm/s - Infill orientation: 45 °C - Cooling fan: OFF 	xy		
			
Infill	15%	50%	100%
Tensile strength (Mpa)	34,4	41,37	53,2
Elastic Modulus (Mpa)	885	1029	1482
Elongation at break (%)	4,85	5,45	4,77
Energy at break (J)	2,29	3,39	3,75

FLEXURAL TEST – STANDARD ISO 178				
Test specimens printed on Ultimaker 2+ with the following setup: <ul style="list-style-type: none"> - Nozzle type: Standard Brass 0.4 - Nozzle Temperature: 230 °C - Heat bed Temp: 85 °C - Print speed: 30 mm/s - Infill orientation: 45 °C - Cooling fan: OFF 	zy- parallel		xy- normal	
				
Infill	50%	100%	50%	100%
Flexural strength (Mpa)	59,2	66,0	52,1	59,9
Flexural Modulus (Mpa)	1290	1322	1225	1721
Deformation (%)	4,88	5,62	5,61	5,92

IMPACT TEST IZOD – STANDARD ISO 180				
Test specimens printed on Ultimaker 2+ with the following setup: <ul style="list-style-type: none"> - Nozzle type: Standard Brass 0.4 - Nozzle Temperature: 230 °C - Heat bed Temp: 85 °C - Print speed: 30 mm/s - Infill orientation: 45 °C - Cooling fan: OFF 	zy- normal		xy- parallel	
				
Infill	50%	100%	50%	100%
Impact strength (KJ/m²)	24,21	40,75	27,88	38,02
Impact Energy (J)	0,96	1,63	1,12	1,55

THERMAL PROPERTIES	VALUE	STANDARD
Glass Transition Temp.	62 °C	ASTM D3418
Heat Deflection Temp.	70 °C	ASTM D648

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	220 – 240 °C
Suggested Print Speed	20 – 40 mm/s
Suggested Bed Temperature	70 - 85 °C
Cooling fan	OFF – 50%