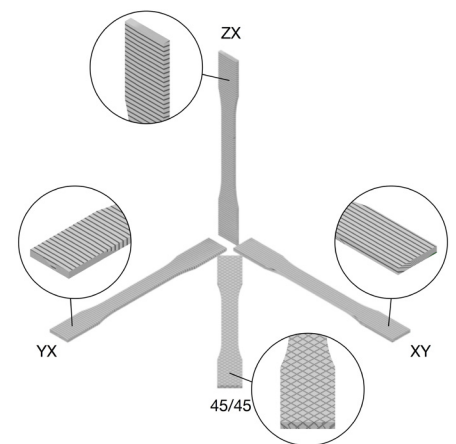


ESSENTIUM PLA

Essentium PLA has been specifically designed for use in additive manufacturing. Our PLA formulation has superior tensile strength, modulus and impact resistance in comparison to standard PLA. Furthermore, our PLA has a high heat deflection temperature stemming from its excellent heat-resistance and faster crystallization rates. This PLA prints with great detail at high speeds, provides less warping, and good bed adhesion. That means you get the performance of an engineering-grade material with the printability of standard PLA.

Property	Test Method	Molded Properties	Print Orientation		
			XY	YX	ZX
Tensile Strength, MPa	ASTM D638	69	61	51	43
Tensile Modulus, MPa	ASTM D638	3538	3387	3167	2824
Flexural Strength, MPa	ASTM D790	126	105	64	73
Flexural Modulus, MPa	ASTM D790	4357	3167	2307	2696
Notched Izod Impact, J/m	ASTM D256	32	31	40	40

Property	Method	Properties
Specific Gravity	ASTM D792	1.24
Melt Flow Rate, g/10 min	ASTM D1238	7 – 9
Melting Point, °C	ASTM D3418	165 – 180
Glass Transition Temperature, °C	ASTM D3418	55 – 60
Heat Deflection Temp., °C	ASTM D648	70



RECOMMENDED PRINT SETTINGS

Extrusion Temperature, °C	190 – 240
Bed Temperature, °C	23 – 60
Enclosure Temperature, °C	Room Temperature
Print Speed, mm/s	30 – 70