

Technical Data Sheet



Product name: MagicFil™ Thermo PLA

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MagicFil™ Thermo PLA is an “easy to use” high-end PLA (Poly-Lactic Acid) type of 3D printer filament, which is slightly modified with an impact modifier, making the filament tougher, less rigid, slightly softer and therefore “easy to print” at relatively low temperatures. MagicFil™ Thermo PLA is nearly warp-free and will not deform after cooling.

As its name implies, MagicFil™ Thermo PLA has an unique and remarkable thermochrome feature as the filament, or printed object will change from colour at a temperature of 29° C.

Properties	Typical value	Test Method	Test condition
Physical			
Specific gravity	1.24 g/cc	ASTM D1505	-
Melt flow rate	6.0 g/10min	-	-
Water absorption	-	-	-
Moisture absorption	-	-	-
Mechanical			
Impact strength	7.5 KJ/m ²	-	-
Tensile strength	110 Mpa (MD)	ASTM D882	-
Tensile modulus	3310 Mpa (MD)	ASTM D882	-
Elongation at break	160% (MD)	ASTM D882	-
Flexural strength	± 55.2 Mpa	-	-
Flexural modulus	± 2392.5 Mpa	-	-
Hardness	-	-	-
Thermal			
Print temperature	± 180 - 220° C	-	-
Melting temperature	± 210 ± 10° C	-	-
Viscat softening temp.	± 60° C	ISO 306	-
Optical			
Haze	2.1%	ASTM D1003	-
Transmittance	-	-	-
Gloss	90	ASTM D1003	Gloss, 20°

Product details, certifications and compliance	Diameter	Tolerance	Roundness
HS Code	1.75mm	± 0.05mm	≥ 95%
REACH compliant	2.85mm	± 0.10mm	≥ 95%
RoHS certified			
FDA compliant			

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