

Technical Data Sheet



Product name: MagicFil™ Thermo PLA

Version: v3

MagicFil Thermo PLA is based on our EasyFil PLA compound, but with a touch of thermochromic magic added, as MagicFil has a colour changing ability when heated above 29° C. MagicFil's anthracite grey colour will change into a natural PLA colour when the material reaches a temperature of 29° C or above.

Being based on our EasyFil PLA compound make MagicFil Thermo PLA a high-end "easy to use" impact modified PLA (Poly-Lactic Acid) type of 3D printer filament which is optimized for FFF / FDM 3D printing technology. MagicFil Thermo PLA is tougher and less rigid than standard PLA and its improved filament flowing behaviour and interlayer adhesion make it an extremely easy to print filament.

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			

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