Technical Data Sheet

Product name: PLA Matte
Version: 1.0
Date: 01.21.2024

MAERTZ

Dimensions

Size	Ø tolerance	Roundness
1,75 mm	± 0.05 mm	± 0.05 mm
2,85 mm	± 0,10 mm	± 0,10 mm

MATERIAL PROPERTIES

Description	Typical value	Test method
Density	1.3412 g/cc	ISO 1183, GB/T 1033
Meltindex（MFR）	13.46g/10（210 °C/2,16kg）min	ISO 1133, GB/T 3682
Glasstransition temperature	62.3°C	DSC,10°C/min
Melting temperature	152.51°C	DSC,10°C/min
Crystallinity		DSC,10°C/min
Vicat Softening Temperature	61.5°C	ISO306, GB/T1633
Heat Deflection Temperature	51.5°C	ISO 75 1.8MPa
Heat Deflection Temperature	55.7°C	ISO 75 0.45MPa
Tensile Strength at Yield	30.053 MPa	ISO 527, GB/T 1040
Strain at Yield	8.119%	ISO 527, GB/T 1040
Strain at Break	12.937%	ISO 527, GB/T 1040
E-Modulus	407.171 MPa	ISO 527, GB/T 9341
Bending Modulus	2546.901MPa	ISO 178, GB/T 9341
Bending Strength	52.427MPa	ISO 178, GB/T 9341
Impact Strength	3.246 kJ/ m^2	ISO 179, GB/T 1043
Layer Adhesion (Impact Strength - Z)	2.427 kJ/ m^2	ISO 179, GB/T 1043
Moisture absorption	0.09%	ISO 62　23℃，50% RH

GUIDELINE FOR PRINT SETTINGS

Description	Typical value
Printing Temperature	200 – 240 °C
Build Plate Compatibility	BuildTak®, Glass,BlueTape,PEI
Bed Temperature	55-70℃ (Glue Recommended)
Cooling Fan	100%
Drying Settings	45-50℃ (Blast Drying Oven)
Printing Speed	50-300(mm/s)
AMS Compatibility	YES
Raft Separation Distance	0.2(mm)Settings are based on a 0.4mm nozzle.
Retraction Speed	30(mm/s)
Hotend Compatibility	0.2mm,0.3mm,0.4mm,0.6mm,0.8mm 1.0mm nozzle.
Environmental Temperature	25℃ Roomtemperature

Packaging:

All spools are sealed and packed with silica gel to avoid humidity.

Additional info:

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End- use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice. Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/ recycling practices of Maertz materials for the intended application. Maertz makes no warranty of any kind, unless announced separately, to the fitness for any use or application. Maertz shall not be made liable for any damage, injury or loss induced from the use of Maertz materials in any application.

Storage:

Cool and dry (15-25℃) and away from UV light. This enhances the shelf life significantly.