

Technical Data Sheet

PLA Matt

PLA Matt offers a unique matte surface that gives printed objects an elegant appearance and enables high detail accuracy. This environmentally friendly material is easy to process and ideal for applications such as exhibition models and design prototypes. Experience a combination of easy handling, sustainability, and appealing aesthetics.



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)	13.46 g/10 min (210 °C/2,16kg)	ISO 1133,GB/T 3682
Glasstransition temperature	62.3°C	DSC,10°C/min
Melting temperature	152.51°C	DSC,10°C/min
Crystallizationtemperature		DSC,10°C/min
Vicatsofteningtemperature	61.5°C	ISO306,GB/T1633
Heatdeflectiontemperature	51.5°C	ISO 75 1.8MPa
Heatdeflectiontemperature	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
Bendingmodulus	2546.901MPa	ISO 178, GB/T 9341
Bending strength	52.427MPa	ISO 178, GB/T 9341
Impact strength	3.246 kJ/ m²	ISO 179, GB/T 1043
Layer Adhesion (Impact Strength - Z)	2.427 kJ/ m²	ISO 179, GB/T 1043
Moisture absorption	0.09%	ISO 62 23°C, 50% RH

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Guideline for print settings	
Description	Typical value
Printing temperature	200 – 240 °C
Build Plate Compatibility	BuildTak®, Glass,BlueTape, PEI
Bed Temperature	55-70°C (Glue recommended)
Cooling fan	100%
Drying Settings	45-50°C (Blast Drying Oven)
Printing speed	50-300 (mm/s)
AMS Compatibility	YES
Raftseparationdistance	0.2 (mm) (Settings are based on a 0.4mm nozzle)
Retractionspeed	30 (mm/s)
Hotend Compatibility	0.2mm,0.3mm,0.4mm,0.6mm,0.8mm 1.0mm nozzle
Environmentaltemperature	25°C (Roomtemperature)

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 R3D 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 °C) and away from UV light. This enhances the shelf life significantly.

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