

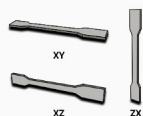
DESCRIPTION

PLA Matte (HS) is our high-speed matte PLA. The enhanced formulation prints at extremely high speeds, is very tough, and its matte finish hides layer lines for OEM-quality objects —an easy way to speed up your printing.

KEY BENEFITS

- High-speed capable
- Matte finish
- Hides layer lines
- Very tough
- OEM-quality surface
- Easy to print

MECHANICAL PROPERTIES



BUILD ORIENTATION KEY

Each tensile bar was printed flat (XY), on its side (XZ) or upright (ZX). The columns below report each build orientation's measured values —ZX (across layers) is the weakest axis.

PROPERTY	STANDARD	XY	XZ	ZX	UNIT
Tensile strength	ISO 527-2	42.8	44.2	21.7	MPa
Yield strength	ISO 527-2	32.9	32.8	/	MPa
Tensile modulus	ISO 527-2	3800	3800	3200	MPa
Strain at yield	ISO 527-2	4.1	3.6	0.8	%
Flexural strength	ISO 178	81.8	83.0	52.7	MPa
Flexural modulus	ISO 178	4500	4500	4000	MPa
Impact strength	ISO 179	6	/	/	kJ/m ²
TEST SPECIMENS	Specimens 3D-printed	Infill 100%	Shells 2	Layer height 0.2 mm	

PRINTING RECOMMENDATIONS

Printing temp.	220 °C
Bed temp.	50 °C
Chamber temp.	35 °C
Recommended speed	≤270 mm/s
Max printing speed	≤950 mm/s
Retraction	0.8 mm
Cooling	100 %

PHYSICAL & THERMAL

Specific gravity	ISO 1133	1.35 g/cc
Melt flow rate	ISO 1133	14 cm ³ /10 min
Melting temp.	ISO 294	164 °C
Heat deflection temp.	ISO 75	55 °C

HANDLING, STORAGE & THERMAL

Max flow rate	70 mm ³ /s	Max-flow test printer	FLsun T1 Pro
Vicat softening temp.	62 °C	Glass transition temp.	60 °C
Drying temp.	45 °C	Drying time	4 h
Enclosed printer	Not recommended	Multi-material compatibility	Compatible

TIPS & TRICKS

- **Matte finish hides layer lines**
Use it when low-gloss surfaces and soft-looking layers matter.
- **Dry thoroughly before printing**
Dry at 45 °C for 4 h and store sealed.
- **Avoid heated chambers**
Avoid extra chamber heat if heat creep appears.
- **Keep visible walls moderate**
Very high outer-wall speed can reduce surface quality even when infill can run fast.
- **Use practical first-layer speed**
Start first layers around 60 mm/s, then increase speed.
- **Recommended print speed**
Use ≤ 270 mm/s for normal prints; Max Printing Speed is the tested ceiling.

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