



3D Printing Solutions

PLA-X3

PLA-X³ is our industrial high performance PLA which features extreme performance on speed¹, mechanical properties² and high heat environments³. PLA-X³ is perfect for printing speeds of > 120mm/s, allowing you to be more efficient in the same time. Users who use a lot of ABS now have a bio-based alternative material with all the advantages of ABS and none of the disadvantages like shrinking and delamination. Due to the composition of PLA-X³ the material is already highly crystalline after printing, which increases the stiffness of the material at higher temperatures. When you combine this with annealing the PLA-X³ the material reaches an HDT of 95°C+. Compared to other high temp. resistant PLA types PLA-X³ has the USP of negligible small shrinkage after annealing (the dimensional accuracy is superb). PLA-X³ has been specifically engineered for industrial applications where you want an easy to print filament with high mechanical properties. Objects that are printed with PLA-X³ will have a semi matte finish which not only looks great but helps concealing layer lines.

Features:

- Prints like PLA, performs like ABS
- Engineered for fast printing (> 120mm/s)
- ABS matching mechanical properties
- Great heat resistance at higher temperatures
- HDT after annealing 95°C+
- Semi matte finish after printing
- Negligible shrinkage after annealing

Colours:

PLA-X 3 is available from stock in 6 colours.



Packaging:

PVA-S is supplied in a vacuum bag and custom box. Deliverable in different sizes:

- 500 gram
- 2,3 kg
- 4,5 kg
- 8,5 kg

Filament specs.

Size	Øtolerance	Roundness
2,85 mm	± 0,10 mm	>95%

Material properties		
Description	Test method	Typical value
Specific gravity	ISO 1183	1,27 g/cc
MFI 210°C / 2,16 kg	ISO 1133	6 g/10min*
Tensile strength	ISO 527	39 MPa
Elongation at break	ISO 527	58%
Tensile modulus	ISO 527	3900 MPa
Impact strength – Charpy notched 23°C	ISO 179	22 kJ/m2
Printing temp.		220-250°C <i>based on speed</i>
Melting temp.		190-220°C
Heat Deflection temp. (B) (after annealing)	ISO 75	95°C+**

*Viscosity is lower (higher MFI) at a higher printing temperature (240°C +-10°C), which increases the printing speed capabilities.

**These results are preliminary and are based on several tests made in-house by our supplier. Current values should be considered factual (+-10%). We will update the technical datasheets as testing progresses (or finishes).

Additional info:

PLA-X³ can be printed without a heated bed. If you have a heated bed the recommended temperature is ± 50-60°C. PLA-X3 adheres to any print service though we always recommend some adhesive or a print sticker. PLA-X³ can be used on the Ultimaker desktop FDM 3D printers.

Storage:

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

Size and pricing

All prices shown are exclusive of VAT.

Pricing	
Size	Price excl. BTW
750 gram	€ 39,50
2,3 kg	€ 104,25
4,5 kg	€ 188,21
8,5 kg	€ 323,39