



TECHNICAL DATA SHEET

FILAMENT | PLA SILK ULTRA

V 1.0 | 28/03/2024



PLA SILK ULTRA is a modified 3D printing filament that is based on PLA (polylactic acid) and enhanced with other polymers and modifiers, which gives 3D printed parts a surface finish with an extremely high gloss and high level of light dispersion and reflection.

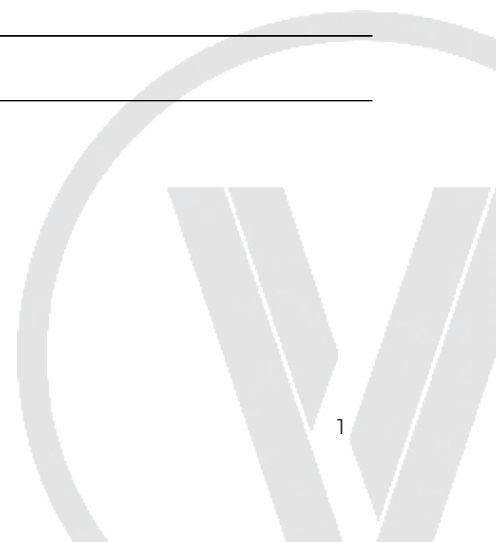
PLA SILK ULTRA filament comes in various deep brilliant colors and allows you to 3D print parts with almost no visible layers.

PRODUCT DESCRIPTION

| Property | Value |
|---------------|-------------------|
| Diameter | 1.75 mm ± 0.05 mm |
| Chemical name | - |
| Fiber content | - |
| Odor | - |

RECOMMENDED PRINTING PROPERTIES

| Property | Value |
|----------------------|---------------|
| Extruder temperature | ± 215 - 245°C |
| Plate temperature | - |
| Ventilation | - |
| Printing speed | - |
| Extrusion multiplier | - |
| Retraction distance | - |
| Retraction speed | - |
| Storage | - |



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PHYSICAL PROPERTIES

| Property | Testing Method | Unit | Value |
|--------------------------------------|---------------------------|---------|-------|
| Specific gravity | ISO 1183 | g/cc | 1.24 |
| Density | - | - | - |
| Hardness | - | - | - |
| Moisture content | - | - | - |
| Moisture absorption | - | - | - |
| Water absorption | - | - | - |
| Solubility | - | - | - |
| VICAT softening temperature | ISO 306 | ° C | ± 58 |
| Glass transition temperature | | | |
| Melting temperature | | | |
| Melt flow rate | ISO 1133 (210°C / 2,16kg) | g/10min | 8,2 |
| Heat deflection temperature | - | - | - |
| Coefficient of thermal Expansion | - | - | - |
| Continuous service temperature | - | - | - |
| Maximum (short term) use temperature | - | - | - |
| Flammability | - | - | - |
| Insulation resistance | - | - | - |
| Surface resistance | - | - | - |
| Abrasion resistance | - | - | - |

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MECHANICAL PROPERTIES

| Property | Testing Method | Unit | Value |
|---------------------------------|---------------------------------------|-------------------|-------|
| Young's modulus | ISO 527 | Mpa | 3200 |
| Tensile strength | ISO 527 at Yield | Mpa | 71 |
| Tensile elongation | ISO 527 (at break) | % | 3,6 |
| Bending modulus | - | - | - |
| Bending strength | - | - | - |
| Izod Impact, notched | - | - | - |
| Izod Impact strength, unnotched | - | - | - |
| Charpy Impact strength | ISO 179 1eA (Charpy at 23°C(73°F)) | KJ/m ² | 2,6 |
| Brittleness temperature | - | - | - |
| Tear strength | - | - | - |

OTHER PROPERTIES

Property

HS Code 39169090

REACH compliant

RoHS certified

Disclaimer :

This information is based on our current knowledge of raw materials and the manufacturing process and refers to the above mentioned products when leaving Volumic 3D. It is solely the customer's responsibility to determine if the product and information in this document are appropriate for the customer's end use. Responsibility for the use, storage, handling and disposal of the products herein is that of the purchaser or end user.

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