PLA Pure

Bambu PLA Pure is built for home printing—because every ingredient inside has earned the right to be there. Just five ingredients, and **every one, pigments included, is certified to EU food-contact safety standards.** Fewer ingredients, cleaner ingredients, and noticeably lower emissions while it prints. Every ingredient certified. Every finished spool certified. So whether it's a desk piece, a gift, or a toy in a kid's hands, PLA Pure is safe to live with.

• Recommended Printing Settings

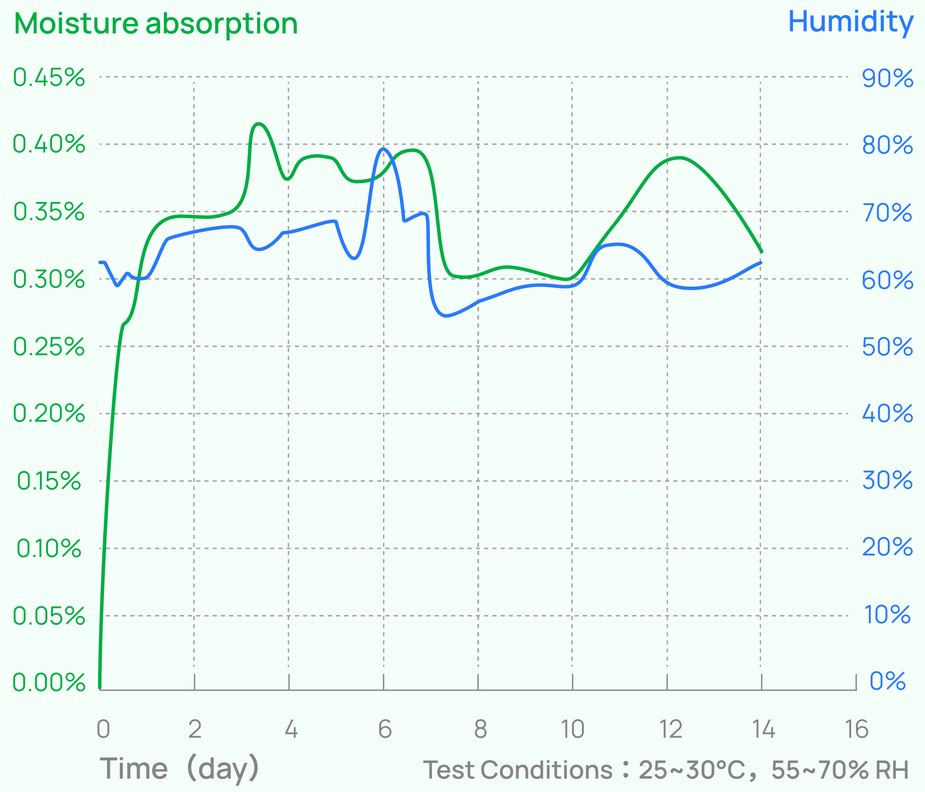
Subjects	Data
Drying Settings before Printing	Blast Drying Oven: 50 °C, 8 h X1 Series & P Series & H2 Series Printer Heatbed: 60 - 70 °C, 12 h AMS 2 Pro & AMS HT: Filament inserted state: 45°C, 12h; Filament non-inserted state: 55°C, 8h
Recommended Re-drying Interval*	18 days
Printers Compatibility	All Bambu 3D printers
AMS Compatibility	AMS, AMS 2 PRO, AMS HT, AMS Lite
Printing and Keeping Container's Humidity	< 20% RH (Sealed, with desiccant)
Nozzle Size	0.2, 0.4, 0.6, 0.8 mm
Nozzle Temperature	190 - 230 °C
Build Plate Type	Textured PEI Plate / Smooth PEI Plate/Cool Plate Supertack
Bed Temperature	35 - 65 °C
Cooling Fan	Turn on
Printing Speed	< 200 mm/s
Retraction Length	0.4 - 0.8 mm
Retraction Speed	20 - 40 mm/s
Chamber Temperature	25 - 40 °C
Max Overhang Angle	55 °
Max Bridging Length	30 mm
Support	Support for PLA
Glue	Not Recommended (Adhesive residue may compromise the contact safety of finished parts. Enhanced bed adhesion can alternatively be achieved by increasing the bed temperature.)

*Maximum exposure time for filaments in ambient air before noticeable degradation in print quality occurs. After this period, a full re-drying is recommended. The actual interval may vary depending on the storage temperature and humidity.

Bambu Lab has tested the differing aspects in the performance of PLA Pure material, including physical, mechanical, and chemical properties. Typical values are listed as followed:

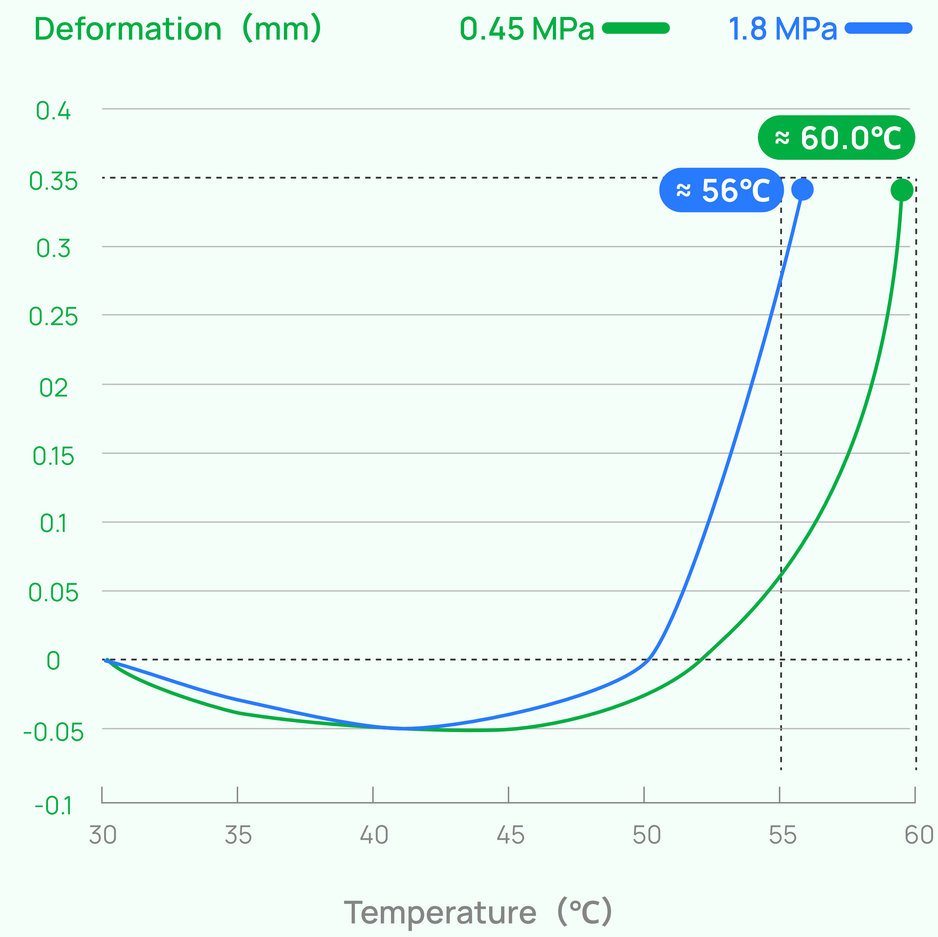
• Physical Properties

Subjects	Testing Methods	Data
Density	ISO 1183	1.24 g/cm³
Melt Index	210 °C, 2.16 kg	11.76 ± 1.6 g/10 min
Saturated Water Absorption Rate	25 °C, 55% RH	0.28%



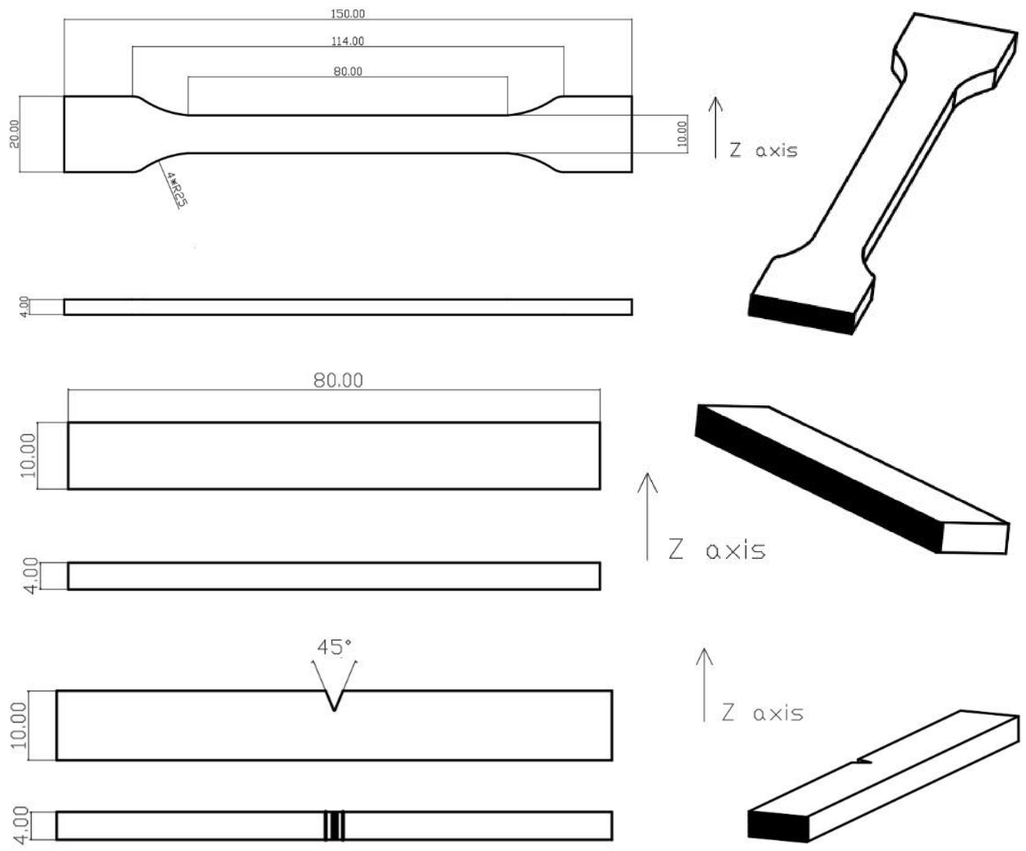
• Thermal Properties

Subjects	Testing Methods	Data
Melting Temperature	DSC, 10 °C/min	160 °C
Glass Transition Temperature	DSC, 10 °C/min	55 °C
Crystallization Temperature	DSC, 10 °C/min	/
Vicat Softening Temperature	ISO 306, GB/T 1633	63 °C
Heat Deflection Temperature	ISO 75 1.8 MPa	56 °C
Heat Deflection Temperature	ISO 75 0.45 MPa	60 °C



• Mechanical Properties

Subjects	Testing Methods	Data
Young's Modulus (X-Y)	ISO 527, GB/T 1040	2481 ± 20 MPa
Young's Modulus (Z)	ISO 527, GB/T 1040	2196 ± 25 MPa
Tensile Strength (X-Y)	ISO 527, GB/T 1040	51.5 ± 2 MPa
Tensile Strength (Z)	ISO 527, GB/T 1040	30.0 ± 3 MPa
Breaking Elongation Rate (X-Y)	ISO 527, GB/T 1040	5.6 ± 1.0 %
Breaking Elongation Rate (Z)	ISO 527, GB/T 1040	2.8 ± 0.5 %
Bending Modulus (X-Y)	ISO 178, GB/T 9341	2880 ± 100 MPa
Bending Modulus (Z)	ISO 178, GB/T 9341	2599 ± 71 MPa
Bending Strength (X-Y)	ISO 178, GB/T 9341	75 ± 2 MPa
Bending Strength (Z)	ISO 178, GB/T 9341	55 ± 5 MPa
Impact Strength (X-Y)	ISO 179, GB/T 1043	20.6 ± 0.7 kJ/m²
Impact Strength (Z)	ISO 179, GB/T 1043	10.0 ± 0.7 kJ/m²



Note: The consumables used in the test are PLA Pure Milky Pink, which were baked in a 50°C blast drying oven for 8 hours before printing. The printing equipment is the Bambu H2D model, using a 0.4 mm hardened steel nozzle, with the nozzle temperature set at 220°C, the hot bed temperature at 55°C, the printing speed at 147 mm/s, and the filling rate at 100%. If annealing treatment is required for the printed parts, it is recommended to control the annealing temperature between 50 and 60°C, with an annealing duration of 6 to 12 hours. It should be noted that some models may deform or warp after annealing, and the actual annealing effect is affected by factors such as annealing temperature, holding time, model size, structural complexity, and filling settings. When drying consumables or annealing models, it is recommended to use equipment with uniform temperature distribution and large volume (such as a blast oven), and ensure that the model or material tray is away from the heat source to avoid local overheating. Do not use a microwave oven or kitchen oven for processing to avoid damaging the wire, material tray, or printed parts.

• Other Physical and Chemical Properties

Subjects	Data
Color and State	Red,White, solid
Odor	Odorless
Composition	Polylactic acid
Skin Hazards	No hazard
Chemical Stability	Stable under normal storage and handling conditions
Solubility	Insoluble in water

Subjects	Data
Resistance to Acid	Not resistant
Resistance to Alkali	Not resistant
Resistance to Organic Solvent	Not resistant to some organic solvents
Resistance to Oil and Grease	Resistant to most kinds of oil and grease
Flammability	Flammable
Combustion Products	Water, carbon oxides
Odor of Combustion Products	Odorless

• Certificate Reports



Certificate of Compliance

Certificate
429084-410

Issue Date
23 Mar 2026

Expiration Date
23 Mar 2027

UL Verification Services does hereby certify that an independent assessment has been conducted on behalf of:

Shenzhen Tuozhu Technology Co., Ltd.

for the following product:

A1 PF002-A 3D Printer with Bambu PLA Pure

The product has been evaluated and meets the requirements for:

GREENGUARD

UL 2904 Standard method for Testing and Assessing Particle and Chemical emissions from 3D printers

Ranee Valles
Director and General Manager

UL Verification Services Inc.
2211 Newmarket Parkway, ste 106
Marietta, GA 30067 USA

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Page 1 of 1



SGS

检测报告 编号：CANEC26004736502 日期：2026 年 03 月 11 日 第 1 页，共 4 页

客户名称： 深圳拓竹科技有限公司
客户地址： 深圳市前海深港合作区南山街道临海大道 2228 号恒昌科技大厦西区 903

样品名称： PLA Pure
客户参考信息： A19-XX (XX 代表任意数字)
以上样品及信息由客户提供。

SGS 工作编号： SZP26-009521
样品接收时间： 2026 年 03 月 05 日
检测周期： 2026 年 03 月 05 日 ~ 2026 年 03 月 11 日
检测要求： 根据客户要求检测
检测方法： 见后续页。
检测结果： 见后续页。

检测要求	结论
EN 71-3:2019+ A2:2024 - 特定元素迁移测试(针对第三类:可以刮取玩具材料)	符合

通标标准技术服务有限公司广州分公司
授权签名

Dongyu Xie 谢冬宇
批准签署人

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SGS

检测报告 编号：CANEC26004685502 日期：2026 年 03 月 13 日 第 1 页，共 8 页

客户名称： 深圳拓竹科技有限公司
客户地址： 深圳市前海深港合作区南山街道临海大道 2228 号恒昌科技大厦西区 903

样品名称： PLA Pure
客户参考信息： A19-XX (XX 代表任意数字)
以上样品及信息由客户提供。

SGS 工作编号： SZP26-009521
样品接收时间： 2026 年 03 月 05 日
检测周期： 2026 年 03 月 05 日 ~ 2026 年 03 月 13 日
检测要求： 根据客户要求检测
检测方法： 见后续页。
检测结果： 见后续页。

	检测要求	结论
1	欧洲议会和欧盟理事会法规 1935/2004(2004 年 10 月 27 日), (EU) No 10/2011 及其修订法规 (EU) 2025/351 - 总迁移量	符合
2	欧洲议会和欧盟理事会法规 1935/2004(2004 年 10 月 27 日), (EU) No 10/2011 及其修订法规 (EU) 2025/351 - 重金属特定迁移量	符合
3	欧洲议会和欧盟理事会法规 1935/2004(2004 年 10 月 27 日), (EU) No 10/2011 及其修订法规 (EU) 2025/351 - 初级芳香胺特定迁移量 (单项)	符合
4	欧洲议会和欧盟理事会法规 1935/2004(2004 年 10 月 27 日), (EU) No 10/2011 及其修订法规 (EU) 2025/351 - 初级芳香胺特定迁移量 (总量)	符合
5	欧洲议会和欧盟理事会法规 1935/2004(2004 年 10 月 27 日), (EU) 2024/3190 - 双酚类化合物及其衍生物	符合
6	欧洲议会和欧盟理事会法规 1935/2004(2004 年 10 月 27 日) - 感官(气味和味道)检测	符合

通标标准技术服务有限公司广州分公司
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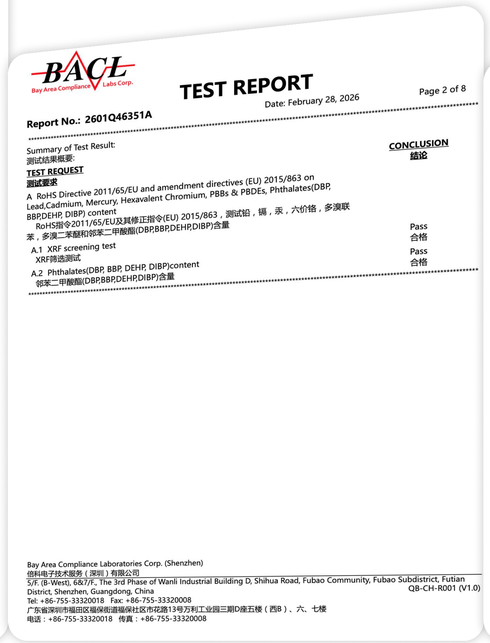
Kim Cai 蔡金凤
批准签署人

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BACL Bay Area Compliance Labs Corp.

TEST REPORT
Date: February 28, 2026
Page 2 of 8

Report No.: 2601Q46351A

Summary of Test Result:
测试结果概要:

TEST REQUEST
测试要求

A RoHS Directive 2011/65/EU and amendment directives (EU) 2015/863 on Lead,Cadmium, Mercury, Hexavalent Chromium, PBBs & PBDEs, Phthalates(DBP, BBP,DEHP, DIBP) content
RoHS指令2011/65/EU及其修正指令(EU) 2015/863，测试铅，镉，汞，六价铬，多溴联苯，多溴二苯醚和邻苯二甲酸酯(DBP,BBP,DEHP,DIBP)含量

A.1 XRF screening test
XRF筛选测试

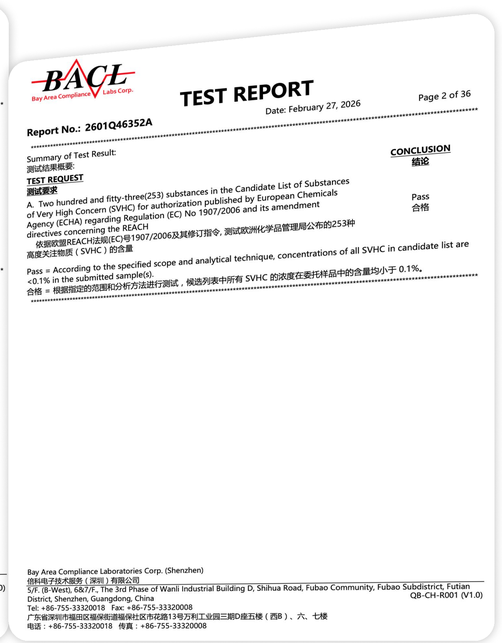
A.2 Phthalates(DBP, BBP, DEHP, DIBP)content
邻苯二甲酸酯(DBP,BBP,DEHP,DIBP)含量

CONCLUSION
结论

Pass
合格

Pass
合格

Bay Area Compliance Laboratories Corp. (Shenzhen)
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QB-CH-R001 (V1.0)



BACL Bay Area Compliance Labs Corp.

TEST REPORT
Date: February 27, 2026
Page 2 of 36

Report No.: 2601Q46352A

Summary of Test Result:
测试结果概要:

TEST REQUEST
测试要求

A. Two hundred and fifty-three(253) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) regarding Regulation (EC) No 1907/2006 and its amendment directives concerning the REACH
依据欧盟REACH法规(EC)号1907/2006及其修订指令, 测试欧洲化学品管理局公布的253种高度关注物质（SVHC）的含量

Pass = According to the specified scope and analytical technique, concentrations of all SVHC in candidate list are <0.1% in the submitted sample(s).
合格 = 根据指定的范围和分析方法进行测试，候选列表中所有 SVHC 的浓度在委托样品中的含量均小于 0.1%。

CONCLUSION
结论

Pass
合格

Bay Area Compliance Laboratories Corp. (Shenzhen)
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QB-CH-R001 (V1.0)

• Mechanical Properties Comparison

Properties	PLA Basic	PLA Matte	PLA Pure	PLA Silk+	PLA Lite	PLA Tough+
Density	1.26	1.32	1.24	1.27	1.4	1.21
Bending Strength (X-Y)	69.6±2	55.5±1	75±2	76.3±2	53.4±3	63±1
Bending Modulus (X-Y)	2935.2±100	2280.2±50	2880±100	2316.2±100	2622.1±100	2123.1±50
Impact Strength (X-Y, un-notched)	19±1.5	27.35±4	20.6±0.7	12±3	18.95±1.5	109.4±20
Bending Strength (Z)	54±1.5	37.6±1	55±5	29.6±2	25.1±2	48.7±1
Bending Modulus (Z)	2597.9±100	1843.8±100	2599±71	1993.6±100	2069.8±100	1883.2±100
Impact Strength (Z, un-notched)	12.8±2	11.78±2.5	10±0.7	4.3±1	5.45±2	31.18±10

* All the above test data is obtained based on the Bambu Lab H2D printer.

• Disclaimer

The performance values are tested by standard samples at Bambu Lab, and the values are for design reference and comparison only. Actual 3D printing model performance is related to many other factors, including printers, printing conditions, printing models, printing parameters, etc.

In the process of using Bambu Lab 3D printing filaments, users are responsible for the legality, safety, and performance indicators of printing. Bambu Lab is not responsible for the use of materials and scenarios and is not responsible for any damage that occurs in the process of using our filaments.