



JIANYU 3D Printing Filaments



Hangzhou Polyful Advanced Material Co., Ltd.

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INTRODUCTION



Company Introduction

Hangzhou Polyful Advanced Material Co., Ltd., established in 2018, is a professional high-tech enterprise engaged in the research, development, production, and sales of high-end polymer products. POLYFUL specializes in developing, producing, and selling high-end polymer products, including compostable resins and products, 3D printing pellets and filaments, modified PPO, thermoplastic silicone elastomers, and modified engineering resins.



3D Printing Brand Introduction

JIANYU is a dedicated brand of 3D printing materials under POLYFUL. Leveraging the technological advantages and expertise accumulation in polymer materials held by POLYFUL, as well as possessing independent core intellectual property rights and R&D production capabilities, JIANYU aims to serve the domestic and international additive manufacturing market by offering high-performance 3D printing filaments.

A technology-driven company specializing in advanced polymer research, production, and sales.

Committed to being a leader in the field of advanced polymer technologies.

Keep developing safe, pro-environment, sustainable solutions in the area of advanced polymer technologies.

Achieve the goals of low-carbon environmental protection, and promote the sustainable development of society.

High Rigidity,
High Toughness

High Impact Resistance

Low Shrinking Percentage

Great Layer Adhesion

Low warping

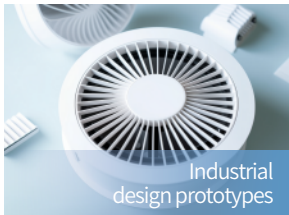
Easy to Form

3D PRINTING MATERIAL

Vine High-toughness

Vine is a product line of JIANYU, which provides a "Toughened" solution for 3D printing filaments. Its strength, durability, impact-resistance, and high bending-resistance provide greater design freedom, making it suitable for printing prototypes of mechanical parts with toughness and precision requirements.

Applications



Industrial design prototypes



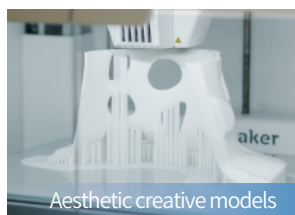
Electronic and electrical accessories



Auxiliary tooling fixtures



Figurine models



Aesthetic creative models




Furniture components

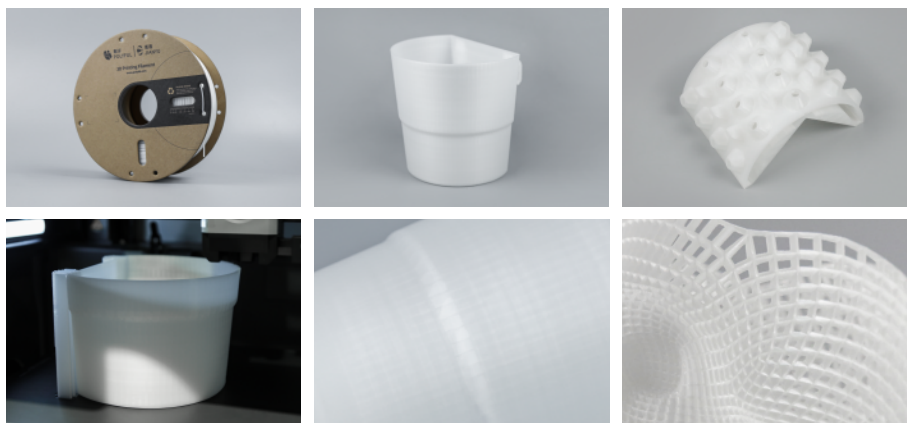
COCOON PLA-Vine DP021001(2)

It is a bio-based and environmentally friendly filament with exceptional toughness and safety. It features low shrinkage, minimal warping, stable extrusion, and easy printability, presenting a semi-transparent, slightly translucent texture. It is suitable for 3D printing applications that require toughness and precision, such as aesthetic detail models or complex industrial design prototypes.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm ³	1.24
Melt Flow Rate	190°C, 2.16kg	GB/T 3682	g/10min	5
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	GB/T 1040.2	MPa	61
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	30
Flexural Strength	2mm/min	GB/T 9341	MPa	85
Flexural Modulus	2mm/min	GB/T 9341	MPa	2800
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m ²	5

					
Diameter 1.75/2.85mm	Weight 1/5kg	Tolerance ±0.05mm	Printing Temp. 190-220°C	Board Temp. 50-65°C	Printing Speed 60-200mm/s

Product and application display



Colors



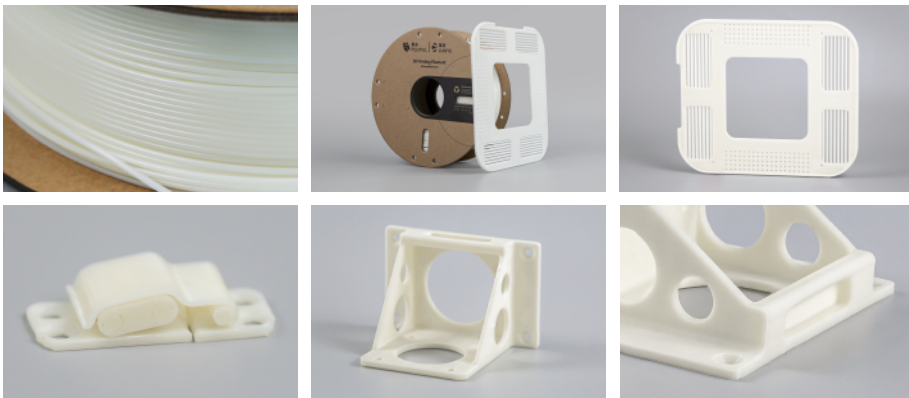
COCOON ABS-Vine EP061001

It is a high toughness ABS material, which can effectively resist external impacts, it has high heat distortion temperature, and good stability performance in high-temperature environments. The material has good fluidity and is easy for printing. The excellent mechanical and thermal properties of this material provide reliable support for the material to be widely used in the manufacturing of automotive parts, white goods, consumer electronics and toys for educational use.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm ³	1.05
Melt Flow Rate	220°C,10kg	GB/T 3682	g/10min	17
Thermal Property				
HDT	1.8MPa	GB/T 1634	°C	90
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	GB/T 1040.2	MPa	48
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	21
Flexural Strength	2mm/min	GB/T 9341	MPa	67
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m ²	32

Diameter 1.75/2.85mm	Weight 1/5kg	Tolerance ±0.05mm	Printing Temp. 230-260°C	Board Temp. 80-100°C	Printing Speed 60-150mm/s

Product and application display



Colors



COCOON ABS-Vine(HS) EP061010(1)

It is high-toughness ABS filaments supporting high-speed and open printing. With high fluidity and low heat capacity, it can realize the rapid melting and cooling of the material, effectively maintaining the details of the effect of high-speed printing. Printing speed in high-speed printers can reach a maximum of 500mm/s, in the play of the excellent mechanical properties of the ABS and reliable dimensional stability at the same time taking into account the efficiency and quality for the rapid manufacture of functional parts. It provides dedicated support for rapid manufacturing of functional components and auxiliary fixtures.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm ³	1.05
Melt Flow Rate	220°C,10kg	GB/T 3682	g/10min	90
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	GB/T 1040.2	MPa	41
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	24
Flexural Strength	2mm/min	GB/T 9341	MPa	49
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m ²	18

Diameter 1.75/2.85mm	Weight 1/5kg	Tolerance ±0.05mm	Printing Temp. 260-290°C	Board Temp. 80-90°C	Printing Speed 100-500mm/s

Product and application display



Colors



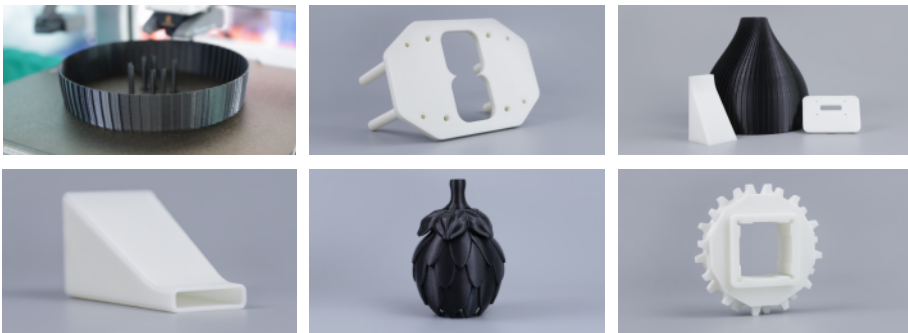
COCOON ABS-Vine(HS) EP061010(2)

It is an ABS material supporting high-speed and open printing. With high fluidity and low heat capacity, it can realize the rapid melting and cooling of the material, effectively maintaining the details of the effect of high-speed printing. Printing speed in high-speed printers can reach a maximum of 200mm/s. The heat-resistant temperature of the printed parts can reach 80~82°C, taking into account the printing efficiency, printing performance, heat-resistant performance and convenience of operation. At the same time, it has excellent mechanical properties and reliable dimensional stability. It is widely used in toys and blocks, electronic and electrical shell parts, industrial parts and fixtures.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm ³	1.11
Melt Flow Rate	220°C,10kg	GB/T 3682	g/10min	150
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	GB/T 1040.2	MPa	45
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	26
Flexural Strength	2mm/min	GB/T 9341	MPa	63
Flexural Modulus	2mm/min	GB/T 9341	MPa	2200
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m ²	4

Diameter 1.75/2.85mm	Weight 1/5kg	Tolerance ±0.05mm	Printing Temp. 260-290°C	Board Temp. 80-90°C	Printing Speed 100-200mm/s

Product and application display



Colors



COCOON ASA-Vine(HS) EP071010(1)

It is a high-speed printing ASA material with a maximum printing speed of 300mm/s and supports open printing. It offers high fluidity, enabling easy printing while maintaining fine details and smooth surfaces even at high speeds. The printed components exhibit excellent impact resistance, weather resistance, anti-yellowing, aging resistance, as well as good anti-cracking and warping resistance. They are durable and suitable for end products with specific weather resistance requirements such as automotive interior parts, garden furniture, and outdoor leisure buildings.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm ³	1.06
Melt Flow Rate	220°C,10kg	GB/T 3682	g/10min	35
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	GB/T 1040.2	MPa	40
Tensile Modulus(X-Y)	50mm/min	GB/T 1040.2	MPa	1900
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	23
Tensile Modulus(Z)	50mm/min	GB/T 1040.2	MPa	1700
Flexural Strength	2mm/min	GB/T 9341	MPa	52
Flexural Modulus	2mm/min	GB/T 9341	MPa	2000
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m ²	30



Diameter
1.75/2.85mm



Weight
1/5kg



Tolerance
±0.05mm



Printing Temp.
270°C

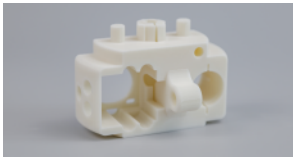


Board Temp.
90°C



Printing Speed
100-300mm/s

Product and application display



Colors



COCOON ABS-Vine(HS) EP061010(2)

It is an easy-to-print series of filaments that features high strength, high rigidity, weather resistance, anti-yellowing, anti-aging, and corrosion resistance. It is easy to print, with low risk of cracking and warping, and supports an open printing environment. The printed items are strong and sturdy, with a matte frosted surface texture, making it suitable for end-use parts that require certain strength or weather resistance, such as automotive interior parts, garden furniture, and outdoor recreational facilities.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	GB/T 1033	g/cm ³	1.17
Melt Flow Rate	220°C,10kg	GB/T 3682	g/10min	10
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	GB/T 1040.2	MPa	45
Tensile Modulus(X-Y)	50mm/min	GB/T 1040.2	MPa	3300
Tensile Strength(Z)	50mm/min	GB/T 1040.2	MPa	22
Tensile Modulus(Z)	50mm/min	GB/T 1040.2	MPa	2000
Flexural Strength	2mm/min	GB/T 9341	MPa	63
Flexural Modulus	2mm/min	GB/T 9341	MPa	3300
Impact Strength, Notched	2.75J	GB/T 1843	kJ/m ²	5



Diameter
1.75/2.85mm



Weight
1/5kg



Tolerance
±0.05mm



Printing Temp.
260°C

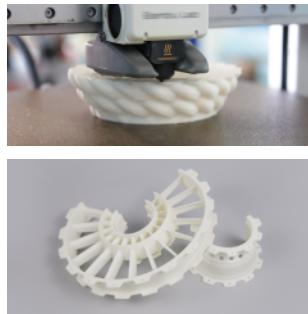
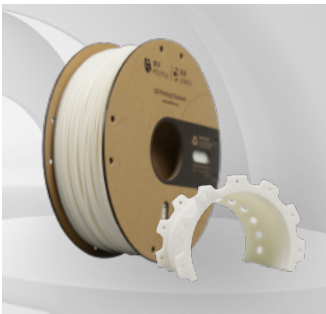


Board Temp.
90-100°C



Printing Speed
100-200mm/s

Product and application display



Colors

