



JIANYU 3D Printing Filaments



Hangzhou Polyful Advanced Material Co., Ltd.

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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.

UL 94
V-0

Flame-
retardant

High
Rigidity

High
Tough-
ness

High
Impact
Resistance

Easy to
Form

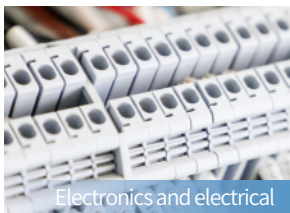
3D PRINTING MATERIAL

Fir

Flame-retardant

Fir is a product line of JIANYU, which provides a "Flame-retardant" solution for 3D printing filaments. It is impermeable and has a water absorption rate of less than 1% at room temperature. The material fulfills flame retardancy according to UL 94 V-0, and is suitable for parts that require flame-retardant properties.

Applications



COCOON ABS-Fir(FR) EP066305

It is a thermoplastic engineering material with flame-retardance. The high impact strength and strong interlayer adhesion make it an ideal material in printing plastic components of industrial machinery. The material fulfills flame retardancy according to UL94 V-0 (@1.6mm), and it also has good mechanical and thermal properties.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	ISO 1183	g/cm ³	1.1
Melt Flow Rate	230°C, 2.16kg	ISO 1133	g/10min	27
Flame-retardant Property				
Flame Class Rating	1.6mm	UL94	/	V0
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	ISO 527-1	MPa	41
Tensile Strength(Z)	50mm/min	ISO 527-1	MPa	23
Flexural Strength	2mm/min	ISO 178	MPa	71
Flexural Modulus	2mm/min	ISO 178	MPa	2266
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m ²	16

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 ASA-Fir(FR) EP076405

It is a thermoplastic engineering material with flame-retardance. The material fulfills flame retardancy according to UL 94 V-0 (@2.0mm). It has high strength, low shrinkage, strong interlayer adhesion, and good toughness. The great performance in both UV resistance, water resistance and thermal stability make it an ideal material in printing complex, ready-to-use components, including final parts, fixtures, functional prototypes with demanding geometries, as well as large-scale leisure architecture and sculpture parts.

Testing Items	Testing Conditions	Testing Methods	Units	Typical Values
Physical Properties				
Density	23°C	ISO 1183	g/cm ³	1.28
Melt Flow Rate	220°C,2.16kg	ISO 1133	g/10min	12
Flame-retardant Property				
Flame Class Rating	1.6mm	UL94	/	V0
Printed Specimen Performance				
Tensile Strength(X-Y)	50mm/min	ISO 527-1	MPa	40
Tensile Strength(Z)	50mm/min	ISO 527-1	MPa	12
Flexural Strength	2mm/min	ISO 178	MPa	70
Impact Strength, Notched	2.75J	ISO 179-1	kJ/m ²	66



Diameter
1.75/2.85mm



Weight
1/5kg



Tolerance
±0.05mm



Printing Temp.
230-260°C

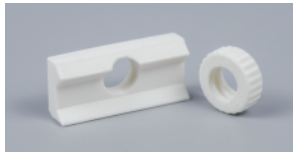
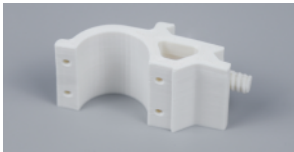
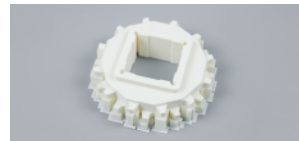
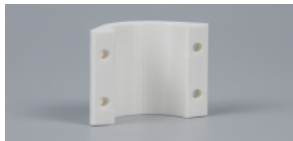
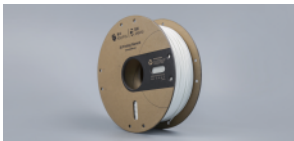


Board Temp.
80-100°C



Printing Speed
60-150mm/s

Product and application display



Colors

