HVF 中科国生 GS BIOMATS FURIX™

BIOMASS CHANGE LIVES

3D PRINTING SOLUTIONS

High-performance Furanic Polymers

Bio-based • Recyclable • High Performance • Superior Molding
High Colorability • Enhancible Physical Properties

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 100%
FDCA China
REACH Regulation (EC) No 1907/2006 FULL REGISTRATION
LCA Proven Lower Carbon Footprint vs PTA 24%
LCA Proven Less Non-renewable Energy Use vs PTA 75%

For more information, please contact us

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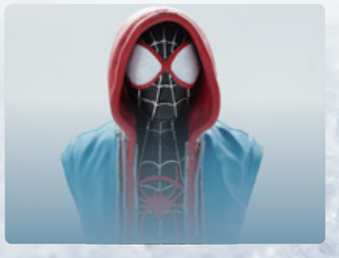
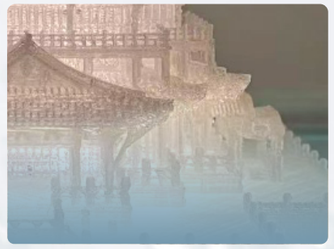
Modified PET

High Performance • High Clarity • Fully Recyclable

- Fully compatible with mainstream 3D printing technologies, offering exceptional mechanical strength and transparency.
- Bio-based material that overcomes the non-recyclable limitations of traditional PETG.
- Perfectly aligned with "low-carbon and circular" industry trends.





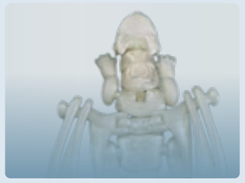
Product Performance Indicators

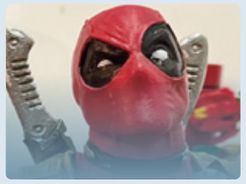
Product Name	Functional PET				
Advantage	Modified with bio-based tri-monomers, and eco-friendly catalysts. Heavy metal-free.				
No.	Iteams			Result	
1	Appearance			Light yellow solid particles	
2	Density			(1.3-1.4) g/cm³	
3	Inherent viscosity			(0.65-0.68) dL/g	
4	Terminal carboxyl group			22±3 mmol/kg	
5	Diethylene glycol			1.2±0.1 %	
6	Glass transition temperature			75±1 ℃	
7	Melting point			233±1 ℃	
8	Decomposition temperature			> 350 ℃	
9	Color Coordinates/L a b			58.77 -0.71 -3.50	
10	Tensile Strength (MPa)	Elongation at Break (%)	Bending Strength (MPa)	Bending Modulus (MPa)	Charpy Notched Impact Strength (kJ/m²)
	55±2	360±30	75±5	2300±100	3.5±0.5

70% Bio-based

Superior Molding • Versatile Compatibility

- Delivers outstanding mechanical performance optimized for mainstream 3D printing workflows.
- Offers stable molding effects to meet the rigorous demands of both structural and functional components.



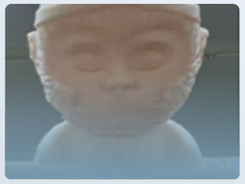
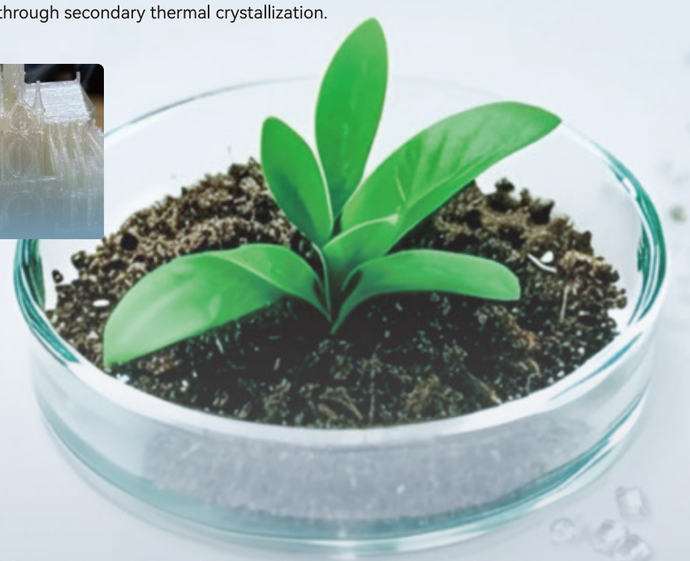


100% Bio-based

Low-Temp Printing • Secondary Crystallization • PLA Optimization

- 100% bio-based material designed to solve the inherent pain points of traditional PLA.
- Semi-crystalline properties allow for high-efficiency, low-temperature printing.
- Physical properties are significantly enhanced through secondary thermal crystallization.



Within furan-based bio-polyester portfolio, PEF (Polyethylene Furanoate) and PBF (Polybutylene Furanoate) serve as the core high-performance materials. Both exhibit superior mechanical properties and molding characteristics, unlocking new material potential and performance possibilities for the 3D printing industry.

Product	Crystalline State	Density (g/cm³)	Tg(℃)	Melting Point (℃)	Inherent Viscosity (dL/g)	Tensile Strength (Mpa)	Elongation at Break (%)	Notched Impact Strength (KJ/m²)
PEF (100% Furan Bio-based)	Semi-crystalline	1.38-1.42	85-90	205-215	0.65-0.85	75-90	5-15	1. 5-2.5
PBF (100% Furan Bio-based)	Semi-crystalline	1. 1-1.2	40-50	170-175	0.70-0.82	45+2	>500	2.5