

Infix 3D Printing Filaments

Infix 3D Printing Filaments are part of the Infix Materials range of products, which focuses on development of premium production materials, mainly for additive manufacturing.

Our filaments are developed in-house and are produced in ISO 9001 certified facilities where we have full control over specifications, production chain, and quality control.

PETG High Speed Overview

PETG is a PET-derived thermoplastic designed to improve temperature and chemical sensitivity as well as mechanical properties. In the 3D printing world, PETG filament is a great choice for applications where mechanical strength and durability are a requirement.

Infix PETG High Speed filament retains all of the characteristics of the standard PETG and has a lower melting point to increase printing quality at high print speeds. It is easy to print at speeds of up to 500mm/s, it does not require an enclosure in most cases, has a great finish and low shrinkage, making it suitable for a wide variety of applications. Layer adhesion is strong, meaning it is resistant to warping, and it is known to have a higher creep resistance than PLA, which makes it perfect for functional parts as well. Stringing at high speeds is minimized and has a high layer adhesion meaning bed temperature requirements are comparable to PLA.

Additives are used in the PETG High Speed variant making it not suitable for food environments.

The possibility of water absorption in the context of long-term storage of PETG High Speed outside a vacuum seal should be considered. Filament drying is recommended prior to usage after long term storage outside of controlled parameters, via a filament dryer.

pros



high speed printing (up to 500mm/s)



reduced stringing at high speeds



high strength and durability



thermal and chemical resistant



warping resistant

cons



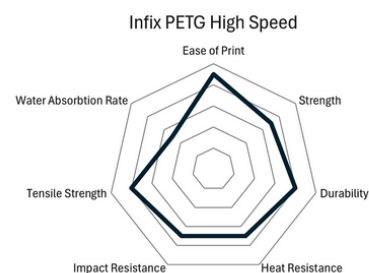
hygroscopic (dry before use)



not recommended for food environments



limited color options



Material Properties

Category	Property	Typical Value	Testing Method
PHYSICAL PROPERTIES	Material Density	1.27 g/cm ³	ASTM D1505
MECHANICAL PROPERTIES	Elongation at Break	7%	ASTM D638
	Tensile Strength at Break	45 - 50 MPa	ASTM D638
	Flexural Strength	55-60 MPa	ASTM D790
	Flexural Modulus	2150 MPa	ASTM D790
THERMAL PROPERTIES	Vicat Softening Temperature	83 °C	ASTM D1525
	Heat Distortion Temperature	74 °C	ASTM D648

Operating Conditions

Category	Parameter	Reference Value
PRINT SETTINGS	Nozzle Temperature	210-230°C
	Bed Temperature	0-40°C
	Active Cooling Fan	NO (max 20%)
ENCLOSURE REQUIREMENT	Not required	
DRYING REQUIREMENT	YES, 6-8 hours at 60°C	

Storage Conditions

Parameter	Reference Value
Temperature	15-30°C
Humidity	≤40% RH
Avoid direct UV light. Materials oxidation may be accelerated and colors can fade.	

Infix PLA+ 3D printing filament can be used with any desktop or industrial FDM/FFF 3d printer with a heated bed that is capable of generating the required operating conditions and is designed to operate within the specifications of the filament models selected.

3D printer configurations and settings are available on our website: www.infix.global/3d-printing

For additional technical support, you can contact us at: filament-support@infix.global

Disclaimer

The information on the datasheet is accurate to the best of Infix Global Limited knowledge. This document should be used as reference only. Your results may differ depending on your specific setup and equipment. You are encouraged to perform specific tests for any application that requires engineering around specifications.

Infix Global Limited will not be liable for any damage, loss or injury as a result of using Infix 3D Printing Filaments in a particular project.