Inslogic Filament Comparison

Find the Right Filament Material for Your Project

Filament Properties	Overview	Tensile Strength	Elongation at Break	Flexural Strength	Flexural Modulus	Density	Heat Deflection Temp at 0.45 MPa	Glass Transition Temperature, 10 °C/min
PLA Pro	Easy-to-print, well-rounded biodegradable filament with good tensile strength. Its stiffness and strength can meet most printing needs.	56 MPa	20.3%	85.8 Mpa	2795 Mpa	1.20 g/cm³	54 ℃	65.3 ℃
Matte PLA	Easy-to-print, well-rounded biodegradable filament produces parts with fine details and a textured, matte surface finish - popular for aesthetically pleasing prints.	52.02 MPa	9.87%	64 Mpa	2278 Mpa	1.3 g/cm³	55 ℃	58.8 ℃
PETG Pro	An excellent, cost-effective solution for printing functional parts, combining ease of use with excellent dimensional stability. Ideal for flexible parts, allowing bending before deformation or snapping.	50 MPa	34.53%	81.9 Mpa	2750 Mpa	1.26 g/cm³	72 ℃	65.5 ℃
High-Speed PLA Pro	Experience **faster**, **easier**, and more **efficient** 3D printing with the Inslogic High-Speed PLA Pro Filament. Achieve rapid printing without compromising on quality or reliability.	42 MPa	7.6%	75 MPa	3500 MPa	1.26 g/cm3	55 ℃	65.5 ℃

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High-Speed Marble PLA	Inslogic High-Speed Marble PLA Filament is designed to replicate natural marble textures with the addition of inorganic particles, adding a touch of sophistication to your 3D prints.	42 MPa	8 %	72 Mpa	3426 Mpa	1.25 g/cm³	55.8 ℃	63 ℃
ASA	Functional material engineered for mechanical parts and outdoor applications, with UV, weather, and temperature resilience, making it ideal for diverse applications.	50 MPa	15%	73 Mpa	2114 Mpa	1.07 g/cm³	96 ℃	108 ℃
TPU 95A	A soft, flexible material creates strong, durable objects that can flex, bend and return to shape. Its high abrasion and wear resistance make it popular for automotive parts, sporting goods, and protective cases.	21.7 MPa	536%	4.26 Mpa	87.6 Mpa	1.23 g/cm³	52 ℃	-
ABS FR V0	Inslogic ABS FR V0 Filament is **UL94 V-0** certified, meeting one of the highest standards for flame resistance. This classification ensures that the material **self-extinguishes** quickly when exposed to flame, preventing sustained combustion.	35 MPa	108%	55 Mpa	2460 Mpa	1.1 g/cm³	86 ℃	-

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Nylon PA6/66	It can be printed at lower temperatures while retaining excellent mechanical properties. Its resistance to impact, wear, and chemicals makes it ideal for functional structural parts and gears.	75 MPa	32%	98 Mpa	2350 Mpa	1.08 g/cm³	121 °C	65 °C
PC-ABS	Inslogic PC-ABS is an engineering-grade thermoplastic that combines the high **heat resistance** of polycarbonate (PC) with the **toughness** and processability of ABS.	42 MPa	8.6%	72 Mpa	2334 Mpa	1.08 g/cm³	103 °C	106 °C
PA6-CF	Inslogic PA6-CF is a high-performance PA6 copolymer (Nylon 6) reinforced with 20% **high-modulus carbon fiber**, which significantly enhances its **stiffness**, **strength**, and **layer adhesion**.	172 MPa	10.1%	254 Mpa	10202 Mpa	1.2 g/cm³	209 °C	65 °C
PA12-CF	Inslogic Industrial PA12-CF is a high-performance 3D printing filament reinforced with **20%** carbon fiber, offering **exceptional strength**, **reduced weight**, and **low moisture sensitivity**.	103 MPa	12.8%	162 Mpa	5468 Mpa	1.0466 g/cm³	177 °C	99 °C