2023

Product Portfolio
Professional range
Industrial range
Hardware range
PolyCore™ range

polymaker

2023

Product Portfolio
Professional range
Industrial range
Hardware range
PolyCore™ range


polymaker
For any inquiries or technical support,
please contact:
support@polymaker.com
PolyMax™
PLA
Printing Speed :
40-60mm/s
Printing Temp :
190-230°C
Bed Temp :
25-60°C
Fan :
ON
Product
Information
Net weight:750g
Spool weight:
~125g
3D printing filament
Filamento para impresión 3D
Filament pour imprimante 3D
Filamento per stampanti 3D
Filamento de impressão 3D
Пластик для 3д печати
Filament für 3D-Drucker
فتيل للطباعة ثلاثية الأبعاد
3डी प्रिंटिंग फिलामेंट
3Dプリンターフィラメント
3D 프린팅 필라멘트
3D打印线材
3D列印線材
Polymaker_3D
Polymaker_3D
polymaker_3D
Polymaker
Spool & Box made

Our Offer

Polymaker offers four kinds of 3D printing products including professional 3D printing filaments, industrial 3D printing filaments, 3D printing pellets, and related hardware to serve our customers.

Professional

The Professional range of products provide filaments with superior properties that deliver a better overall printing experience, ensuring the efficiency of 3D printers and empowering users to create strong and functional 3D printed products.

Industrial

The Industrial range of products provides engineering grade materials, these materials not only have high performance but also have high printability to unlock the use of 3D printing in multiple industries for new applications. It offers alternatives for customers in using 3D printing technology in industrial applications.

Hardware

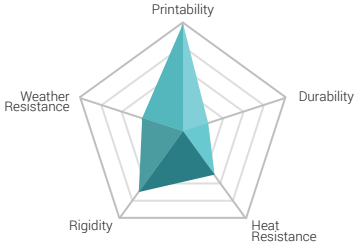
Polymaker Hardware family offers 3D printing accessories to optimize the user experience with their filaments.

PolyCore™

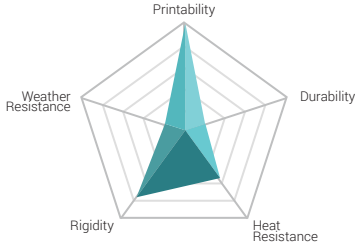
Polymaker pellet product, PolyCore™, is a new range of polymer composites and compounds with optimized size-stability and layer adhesion, designed specifically for large-scale material-extrusion based 3D printing technologies, e.g. Big Area Additive Manufacture (BAAM) and Medium Area Additive Manufacture (MAAM).

About Polymaker

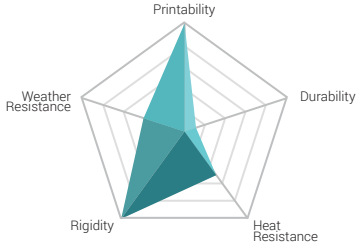
Polymaker is a developer and manufacturer of 3D printing materials committed to innovation, quality and sustainability. Its award-winning product portfolio has enabled numerous of individuals and companies to "better create and innovate." Headquartered in Changshu, China, Polymaker has multiple office locations in Shanghai, Utrecht and Houston ready to serve customers across the globe.



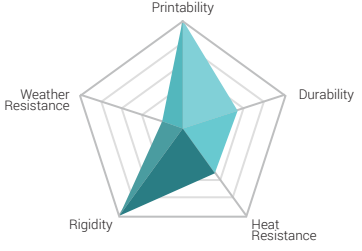
PolyTerra™ PLA



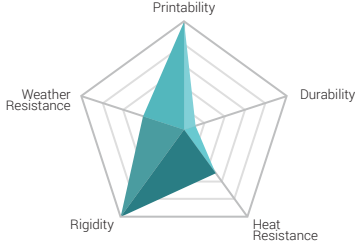
PolyTerra™ PLA+



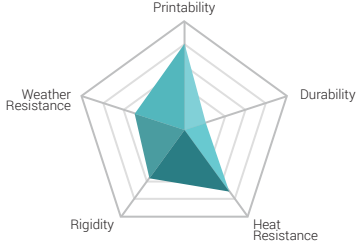
PolyLite™ PLA



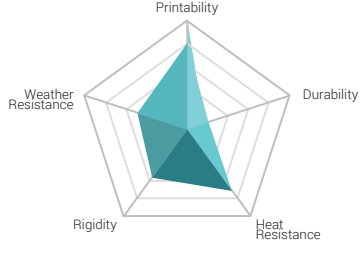
PolyLite™ PLA Pro



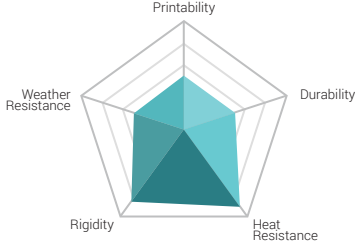
PolyLite™ LW-PLA



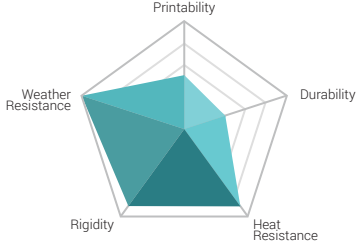
PolyLite™ PLA-CF



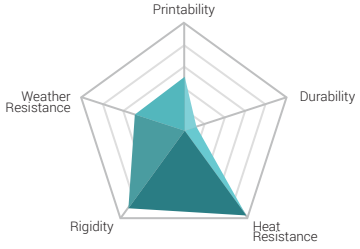
PolyLite™ PETG



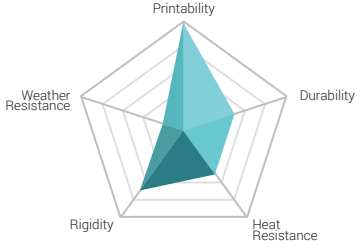
PolyLite™ ABS



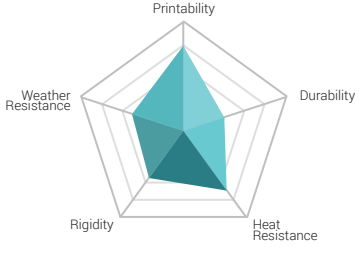
PolyLite™ ASA



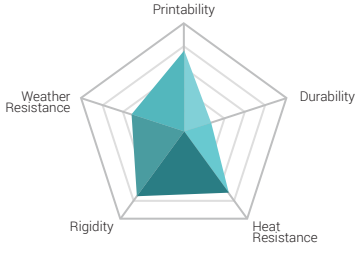
PolyLite™ PC



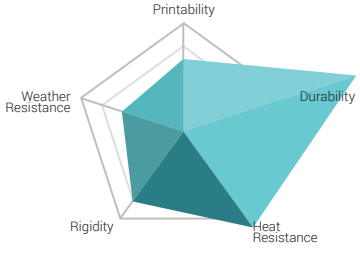
PolyMax™ PLA



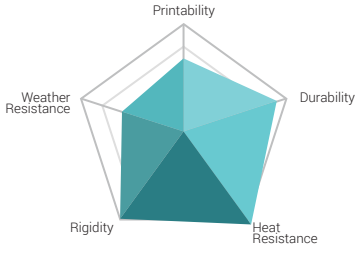
PolyMax™ PETG



PolyMax™ PETG-ESD



PolyMax™ PC



PolyMax™ PC-FR

Printability

The printability of the material is defined by its ease of use and equipment required.

Durability

The durability of the material is defined by its resistance to impact:Charpy impact strength ISO 179, GB/T 1043.

Weather Resistance

The weather resistance of the material is defined by its UV resistance. The data provided is currently an estimation.

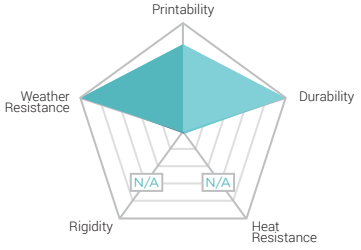
Rigidity

The rigidity of the material is defined by its modulus:Young's modulus
ISO 527, GB/T 1040.

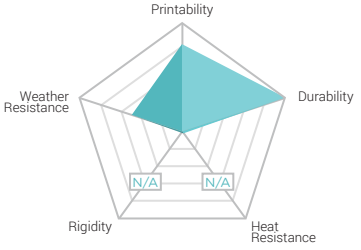
Heat Resistance

The heat resistance of the material is defined by its VST:
Vicat Softening temperature
ISO 306 GB/T 1633.

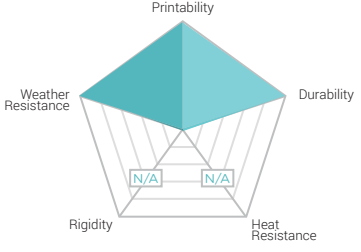
*PolyMide™ PA6-CF and PolyMide™ PA6-GF heat resistance are defined by their HDT: Heat Deflection Temperature



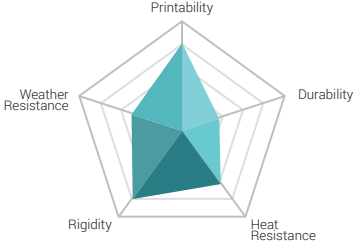
PolyFlex™ TPU90



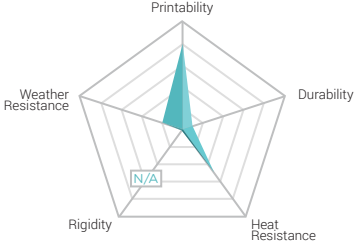
PolyFlex™ TPU95



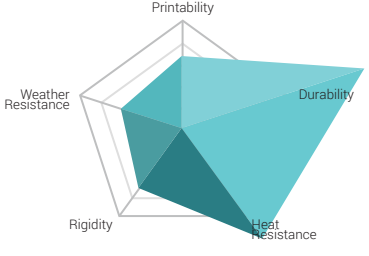
PolyFlex™ TPU95-HF



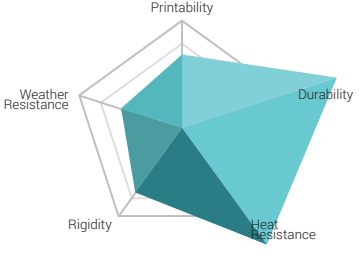
PolySmooth™



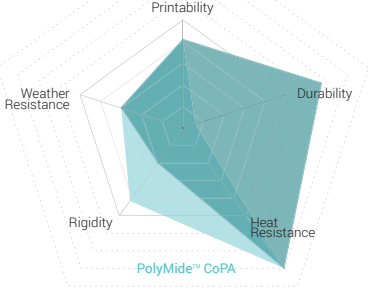
PolyWood™



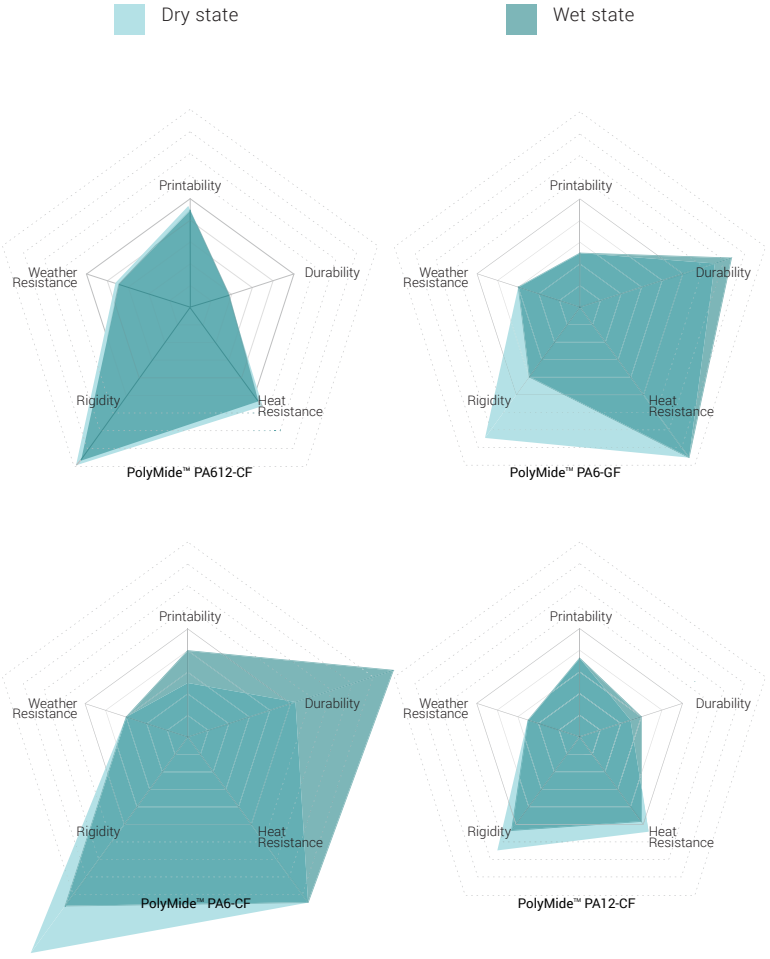
Polymaker™ PC-ABS



Polymaker™ PC-PBT



PolyMide™ CoPA



Printability

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Durability

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Heat Resistance

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Vicat Softening temperature
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*PolyMide™ PA6-CF and PolyMide™ PA6-GF heat resistance are defined by their HDT: Heat Deflection Temperature

Technologies

JAM-FREE™

Jam-Free™ technology improves the heat stability of Polymaker's PLA filaments with softening temperatures over 140 °C. As a result, Polymaker's PLA filaments show minimal softening in the "cold end" and can melt rapidly once entering the heating zone, leading to excellent printing quality with zero risk of nozzle jams.

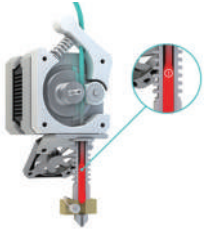
WARP-FREE™

Warp-Free™ technology enables the production of Nylon-based filaments that can be 3D printed with excellent dimensional stability and near-zero warpage. This is achieved by the fine control of micro-structure and crystallization behavior of Nylon, which enables the material to fully release the internal stress before solidification.

ASH-FREE™

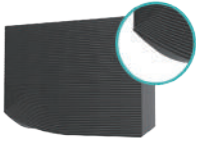
Ash-Free™ technology allows Polymaker's filament which has been designed for investment casting to burn off cleanly without any residue, enabling defect-free metal parts. 3D printing has been used to produce investment casting patterns as it cuts down both the cost and lead time for small-volume production runs.

Regular PLA

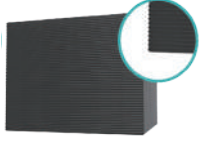


With Jam-Free™

Regular Nylon

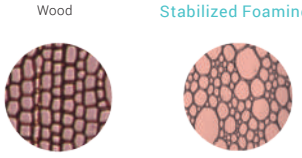


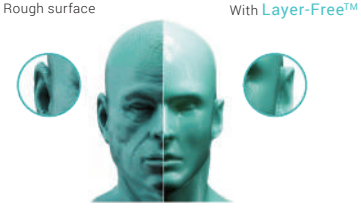
With Warp-Free™

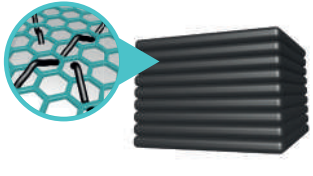


Without Ash-Free™
Ash content: 0.5%

With Ash-Free™
Ash content: 0.003%







STABILIZED FOAMING™

Stabilized Foaming™ technology is used to produce foamed filaments, whose foam structure can survive the printing process and be inherited by the printed parts. This enables light weight 3D printed parts with unprecedented surface finish.

LAYER-FREE™

Layer-Free™ technology involves exposing a 3D printed part to an aerosol of micro-sized alcohol droplets, generated by a rapidly vibrating, perforated membrane called the nebulizer. The aerosol will then be adsorbed by the surface of the 3D printed part rendering it smooth and layer-free.

NANO-REINFORCEMENT™

Nano-reinforcement™ technology is applied to produce filaments with excellent mechanical properties and printing quality. It dramatically improves the toughness of the material by increasing its impact resistance.

FIBER ADHESION™

Fiber Adhesion™ technology improves the layer adhesion of fiber reinforced materials, by optimizing the surface chemistry of the fibers to achieve better dispersion and bonding to the matrix. This results in better strength along the Z-axis and reduced mechanical anisotropy.

PolyTerra™ PLA

PolyTerra™ PLA is a PLA-based 3D printing filament designed from the ground up to create the next generation of eco-friendly filaments. Its ease of use, print quality, and speed makes it a reliable filament. It's packaged in a fully recycled cardboard spool and for every spool sold Polymaker will plant one tree local to the place of purchase.

PolyTerra™ PLA spool and box are made from recycled cardboard. Recycling reduces the amount of resources needed to manufacture new spools and boxes. Cardboard is biodegradable, microorganisms and other decomposers will break the fibers of the cardboard down and produce soil.

The next generation of PLA:
Fully Bio Compound

PolyTerra™ PLA is a newly developed material from Polymaker called FBC. It is a compound of PLA bioplastic and biocomposite. PLA is biodegradable under industrial composting conditions however the degradation rate is very slow in ambient temperatures. This specially designed biocomposite contains less plastic to degrade making PolyTerra™ PLA a more environmental friendly material.

The newly developed FBC from Polymaker is not only eco-friendlier but it also have multiple benefits in 3D printing

Excellent printability:
PolyTerra™ PLA features great overhang and bridging capability. It is also capable of reaching faster printing speeds while maintaining consistent extrusion.

Matte/Smooth finish:
PolyTerra™ PLA gives a smooth and matte surface finish on your prints, helping with hiding the layer pattern specific to FFF 3D printing.

Easy support removal:
One of the main advantages of PolyTerra™ PLA is that it's designed to support itself and breakaway easily.

Jam-Free™ Technology:
Just as Polymaker's PolyLite™ PLA, PolyTerra™ PLA also features Jam-Free™ Technology!

Tougher than regular PLA:
PolyTerra™ PLA toughness not only improves the printing reliability of the material but also allows the users to print more durable parts.

Colors available

General
Pastel
Army
Marble
Dual

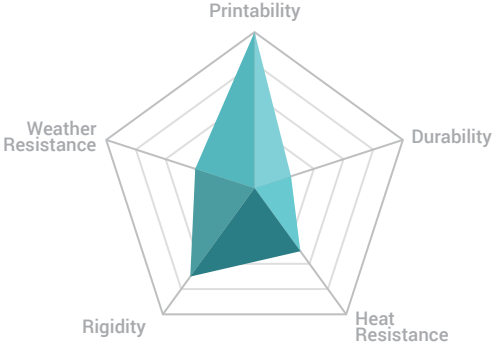
Applications

PolyTerra™ PLA is designed from the ground up to meet the demands from 3D printing hobbyists and schools. Its wide range of colors and excellent printability makes it ideal for educational models, toys, gadgets & trinkets as well as home decorations. The improved toughness of PolyTerra™ PLA allows the creation of more durable models.

Printing Settings

Printing temp.:	190-230°C
Printing speed:	30-70mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyTerra™ PLA

Key features

Eco-friendly

Excellent printability

Easy support removal

PolyTerra™ PLA+

PolyTerra™ PLA+ is an enhanced bioplastic based 3D printing filament designed from the ground up to create the next generation of PLA. PolyTerra™ PLA+ provides ease of use, print quality, and reliability. It's a sustainable product sourced naturally and for every spool sold, a tree is planted to give back to the environment."

Colors available

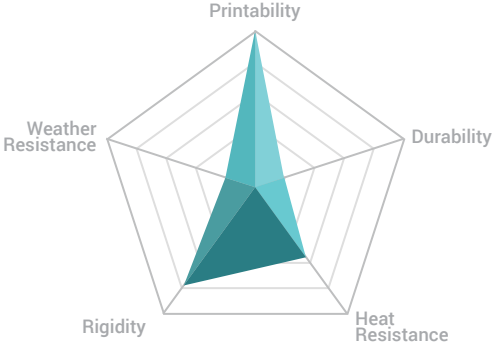
Applications

PolyTerra™ PLA+ is very easy to print and results in a satin finish. It's wide range of colors along with it's excellent printability makes it ideal for educational models, toys, gadgets & trinkets as well as home decorations. It's enhanced layer adhesion and toughness allows the creation of more durable models.

Printing Settings

Printing temp.:	190-230°C
Printing speed:	30-70mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyTerra™ PLA+

Key features

Eco-friendly

Excellent printability

Improved toughness

PolyLite™

PolyLite™ is a family of 3D printing filaments made with the best raw materials to deliver exceptional quality and reliability. PolyLite™ covers the most popular 3D printing materials to meet your everyday needs in design and prototyping.

PolyLite™ PLA

PolyLite™ PLA is a high-quality PLA designed for reliability and ease of printing.

Colors available

General
Silk
Glow
Silk Dual
Galaxy
Dual

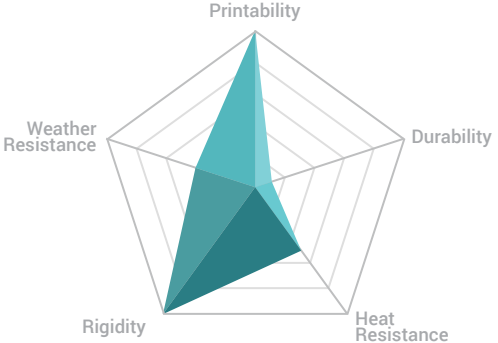
Applications

PolyLite™ PLA is a reliable 3D printing material with a wide variety of colors. It features strength and rigidity, this combination provides ease of printing with good mechanical properties which makes it a good candidate for product design, home gadgets, toys, trinkets, props, cosplay or prototyping.

Printing Settings

Printing temp.:	190-230°C
Printing speed:	40-60mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ PLA

Key features

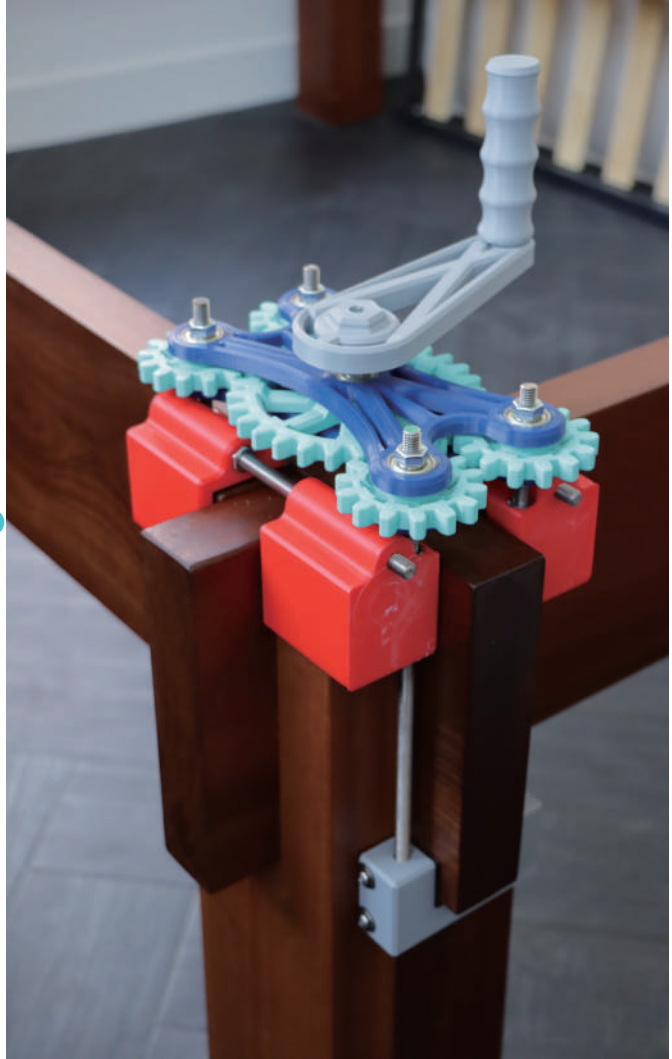
Excellent printability

Prints reliably

From renewable sources

PolyLite™ PLA Pro

PolyLite™ PLA Pro is a first of its kind: combining high toughness and high rigidity, this professional PLA offers engineering properties with the ease of print of regular PLA.



Colors available

General

Silk

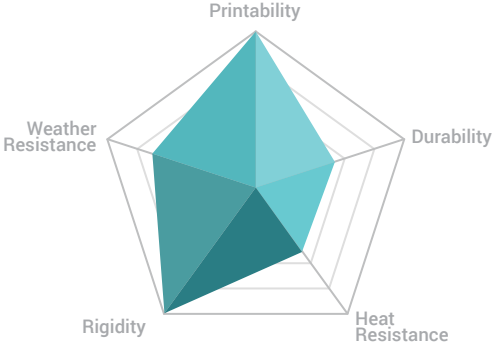
Applications

PolyLite™ PLA Pro is a first of its kind: combining high toughness and rigidity. This professional PLA offers engineering properties with the ease of print as regular PLA. This makes it a good candidate for wide applications covering functional prototyping, jigs and fixtures as well as final parts.

Printing Settings

Printing temp.:	190-220˚C
Printing speed:	30-70mm/s
Bed temp.:	30-60˚C
Chamber temp.:	N/A
Fan:	ON
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ PLA Pro

Key features

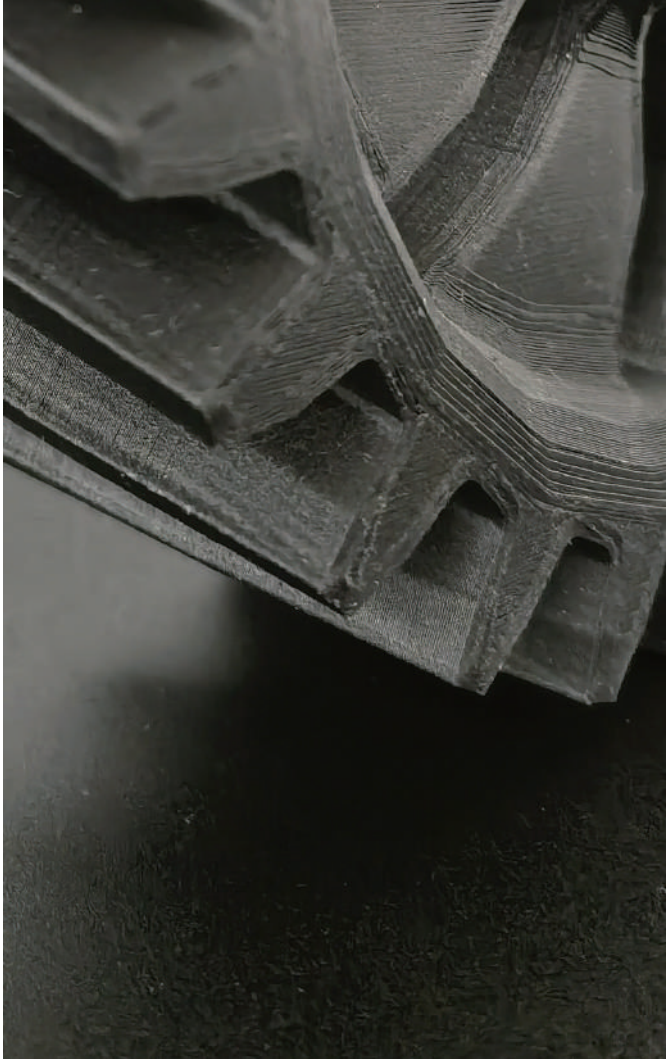
Excellent printability

High impact strength

Easy to use

PolyLite™ PLA-CF

PolyLite™ PLA-CF is a PLA filament filled with carbon fiber which gives it excellent strength and rigidity. It has better toughness than regular PLA and includes an incredible matte finish which results in prints being smooth.



Colors available

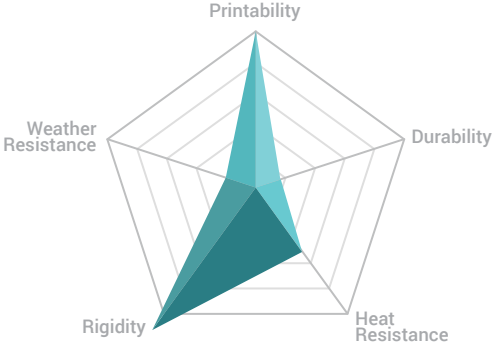
Applications

Thanks to its balanced mechanical properties, PolyLite PLA-CF can be used in applications including functional prototyping, jigs and fixtures, and final parts.

Printing Settings

Printing temp.:	210-230˚C
Printing speed:	25-60mm/s
Bed temp.:	30-70˚C
Chamber temp.:	N/A
Fan:	ON
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ PLA-CF

Key features

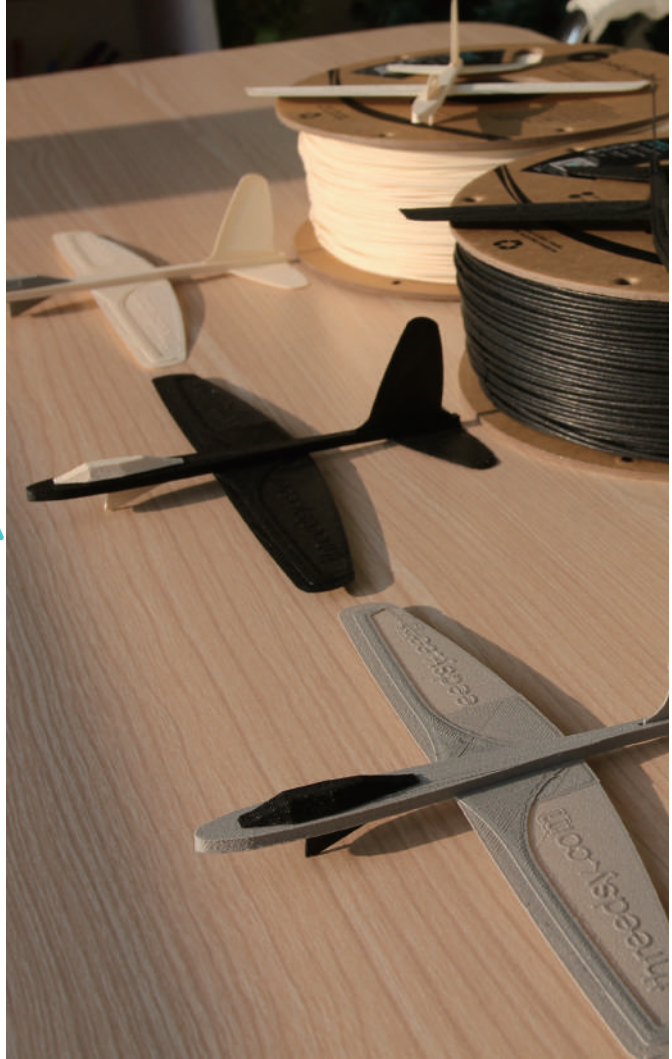
Excellent rigidity

Prints reliably

From renewable sources

PolyLite™ LW-PLA

PolyLite™ LW-PLA has excellent printability, and the density of the filament is 30% less than of regular PLA. With the help of our Polymaker stabilized foaming technology, the matte surface of foamed PLA helps to hide print layers and makes it easier to paint. PolyLite™ LW-PLA is an ideal material for the printing of RC-planes and other light weight parts.



Colors available

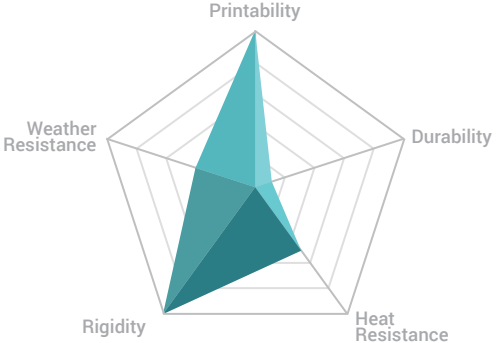
Applications

PolyLite™ LW-PLA has excellent printability, the density of filament decreases 30% compared to regaular PLA by using of Polymaker stablized foaming technology, the matte surface of foamed PLA helps to hide printed layer and make prints easy to paint. It is an ideal material to printing RC-planes and other light weight parts.

Printing Settings

Printing temp.:	190-210˚C
Printing speed:	30-50mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ LW-PLA

Key features

Low density

Excellent printability

Matte surface

PolyLite™ PETG

PolyLite™ PETG is an affordable PETG filament with balanced mechanical properties and ease of printing.

Colors available

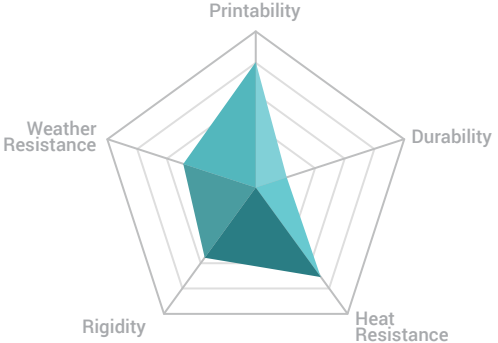
Applications

PolyLite™ PETG is just as easy to print as PolyLite™ PLA while offering an additional 20˚C heat resistance and more durability. This lends PolyLite™ PETG to more functional applications where PLA would lack the durability or heat resistance such as lighting fixtures, vibrational parts or more functional product design prototypes.

Printing Settings

Printing temp.:	230-240°C
Printing speed:	30-50mm/s
Bed temp.:	70/80°C
Chamber temp.:	N/A
Fan:	Off-20%
Drying settings:	65°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ PETG

Key features

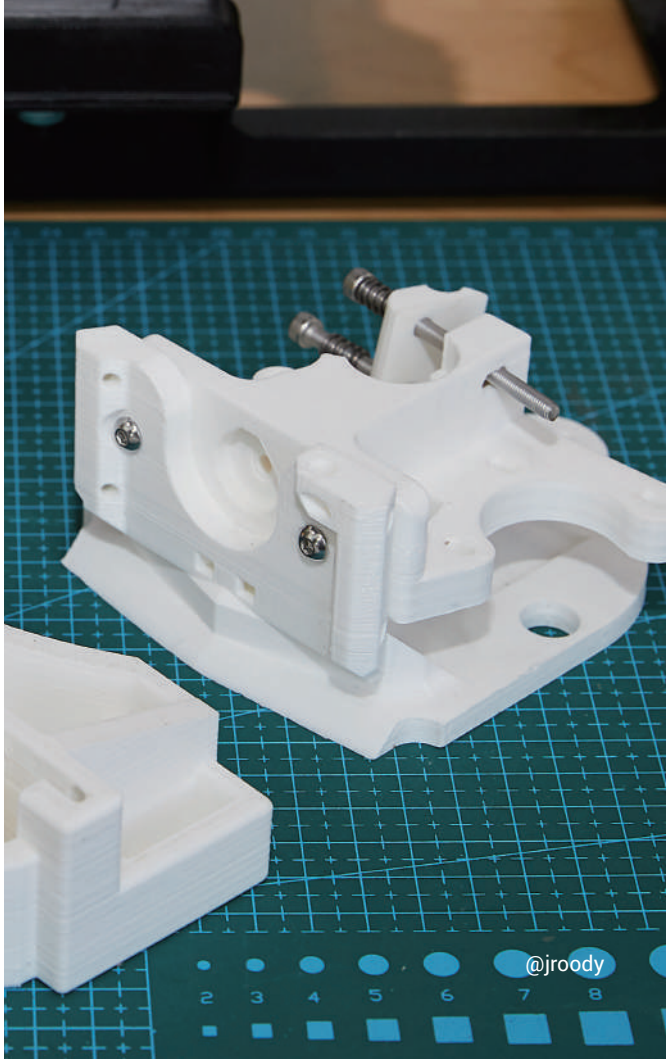
Excellent all-rounder

Good layer adhesion

Good light diffusion

PolyLite™ ABS

PolyLite™ ABS is made with a specialty bulk-polymerized ABS resin, which has significantly lower volatile content compared to traditional ABS resins. It delivers excellent printing quality with minimal odor during printing.



Colors available

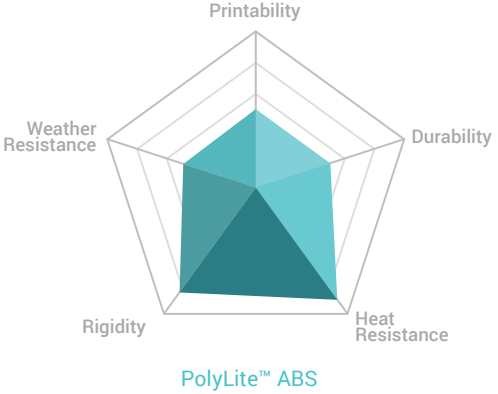
Applications

PolyLite™ ABS is a very durable material, featuring high impact resistance with high heat resistance (~100˚C). PolyLite™ ABS is a good choice for mechanical parts featuring in robotics, functional prototyping or home appliance spare parts, however, printing larger parts will require an enclosed printing chamber.

Printing Settings

Printing temp.:	245-265°C
Printing speed:	30-50mm/s
Bed temp.:	90-100°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	70°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ ABS

Key features

Heat resistant

Impact resistant

Machinable

PolyLite™ ASA

PolyLite™ ASA is an alternative to ABS with an improved weather resistance. Its UV resistance and excellent mechanical properties make it the perfect choice for outdoor applications.

Colors available

General
Pop
Rainbow

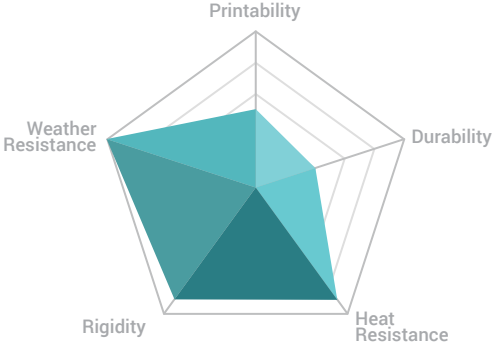
Applications

PolyLite™ ASA has the same mechanical and thermal properties as PolyLite™ ABS with the ability to resist sunlight (UV) and weather in general. Its good weather resistance makes it ideal for outdoor applications such as garden tools, outdoor decoration, parts that are in direct sunlight or exposed to the elements.

Printing Settings

Printing temp.:	240-260°C
Printing speed:	30-50mm/s
Bed temp.:	75-95°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	70°C for 6h
Annealing:	N/A

Material Properties



PolyLite™ ASA

Key features

UV resistant

Water resistant

Good thermal and mechanical properties

PolyLite™ PC

PolyLite™ PC is produced using a polycarbonate resin specifically engineered for 3D printing. It delivers good stiffness and heat resistance with light diffusing properties.

Colors available

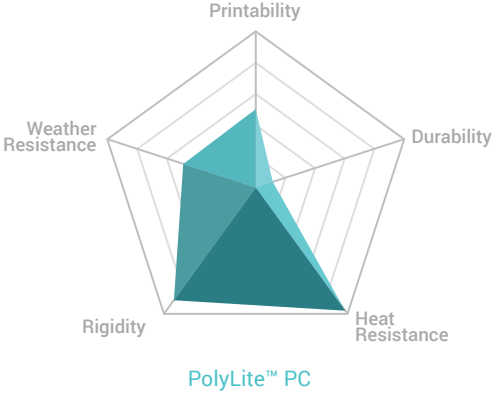
Applications

PolyLite™ PC is an engineering material which offers excellent strength and heat resistance. Its transparency offers good light diffusion which makes it perfect for lighting applications. Its strength can also be used to print utility hooks, brackets or other functional home items.

Printing Settings

Printing temp.:	250-270°C
Printing speed:	30-50mm/s
Bed temp.:	90-105°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	75°C for 6h
Annealing:	90°C for 2h

Material Properties



PolyLite™ PC

Key features

Heat resistant

Good light diffusion

Stiff and strong


AKG

PolyMax™

PolyMax™ is a family of advanced 3D printing filaments produced with Polymaker's Nano-reinforcement technology, to deliver exceptional mechanical properties and printing quality.

PolyMax™ PLA

PolyMax™ PLA is an incredibly easy-to-print filament with improved mechanical properties, making it an excellent alternative to ABS.

Colors available

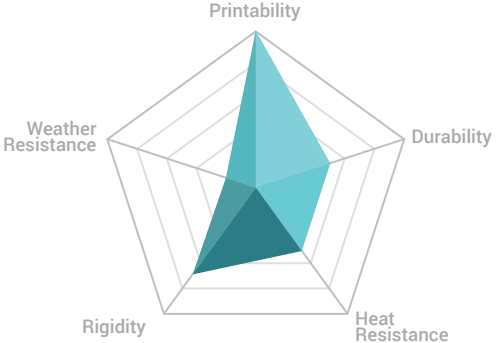
Applications

PolyMax™ PLA prints like PolyLite™ PLA with 5 times the durability! PolyMax™ PLA is the perfect candidate for educational projects or in the professional environment where product design iteration requires a reliable prototyping process and a durable material. PolyMax™ PLA can be used to print prototypes, prosthetics, lifestyle accessories and mechanical parts.

Printing Settings

Printing temp.:	190-230°C
Printing speed:	40-60mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



PolyMax™ PLA

Key features

Extremely tough PLA

Excellent printability

Prints reliably

PolyMax™ PETG

PolyMax™ PETG offers better mechanical properties than any other regular PETG making it a good candidate for a wide range of applications.

Colors available

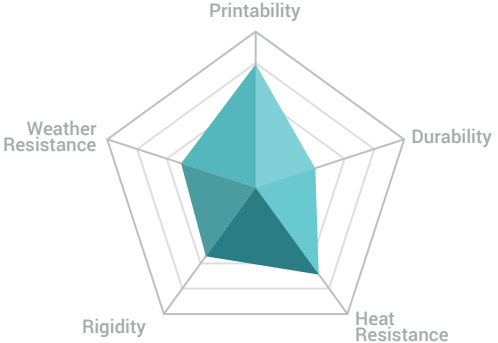
Applications

PolyMax™ PETG is a very good all-rounder providing: ease of printing, heat resistance, durability and strength. It can be used for a wide range of applications covering functional prototyping, end-use products, brackets, spare parts, home gadgets and robotic parts.

Printing Settings

Printing temp.:	230-240°C
Printing speed:	30-50mm/s
Bed temp.:	70-80°C
Chamber temp.:	N/A
Fan:	Off - 20%
Drying settings:	65°C for 6h
Annealing:	N/A

Material Properties



PolyMax™ PETG

Key features

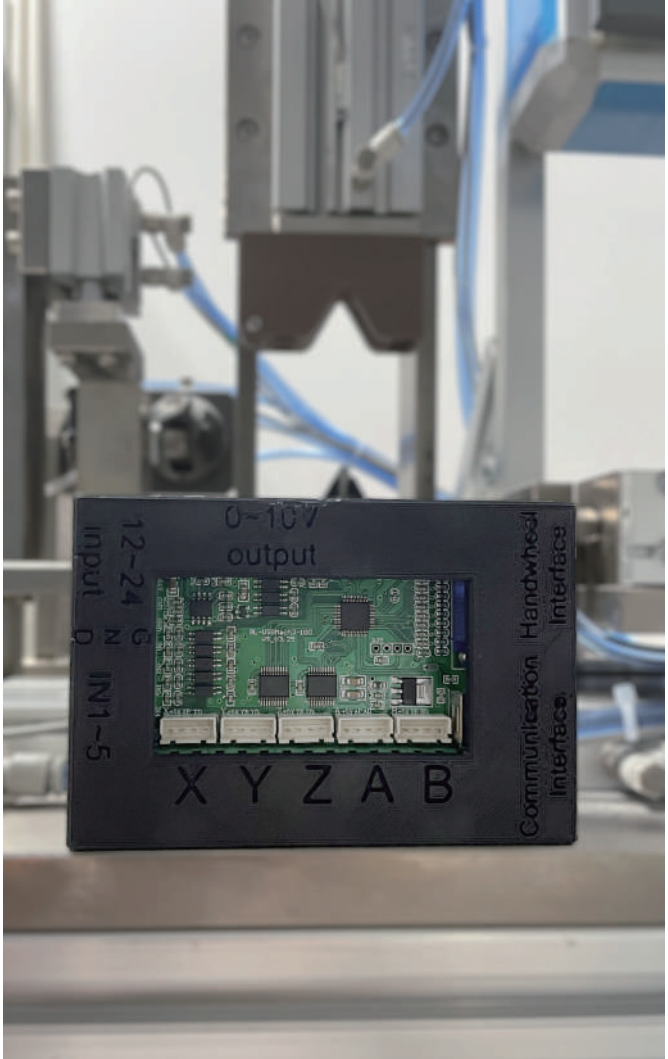
Extremely tough PETG

Excellent all-rounder

Good layer adhesion

PolyMax™ PETG-ESD

PolyMax™ PETG-ESD offers electrostatic discharge (ESD) safety with improved toughness making it a good candidate for applications in electronics industry.



Colors available

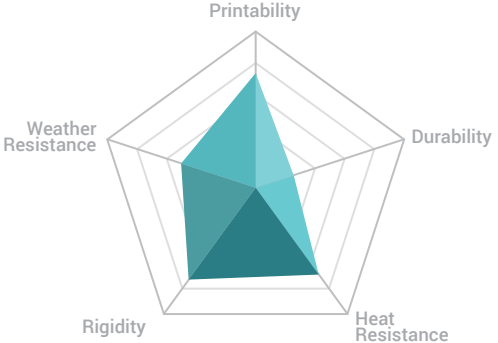
Applications

PolyMax™ PETG-ESD is compounded with carbon nanotubes that allow it to dissipate electrostatic charges thanks to its very low surface resistivity.This innate property lends itself for the printing of electronic housings for circuit boards. Paired with the good all round properties of PolyMax™ PETG, this is a material thats tough and ESD functional.

Printing Settings

Printing temp.:	250-290˚C
Printing speed:	30-50mm/s
Bed temp.:	70-80˚C
Chamber temp.:	N/A
Fan:	OFF
Drying settings:	65˚C for 6h
Annealing:	N/A

Material Properties



PolyMax™ PETG-ESD

Key features

ESD Safety

Tough PETG

Excellent all-rounder

PolyMax™ PC

PolyMax™ PC is an engineered PC filament combining excellent strength, toughness, heat resistance and printing quality. It is the ideal choice for a wide range of engineering applications.

Colors available

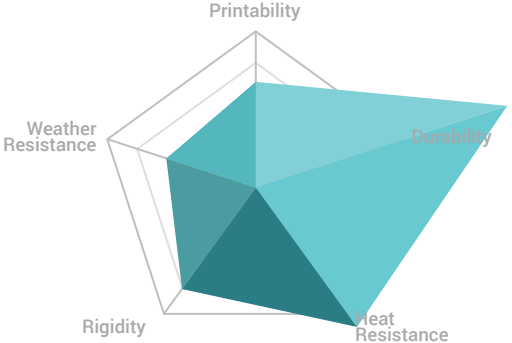
Applications

PolyMax™ PC is an engineering material with excellent heat resistance and outstanding durability. It can be used for more demanding applications involving impact resistance and high vibration such as jigs and fixtures, furniture, small motor brackets, drones, 3D printer parts or prosthetics.

Printing Settings

Printing temp.:	250-270°C
Printing speed:	30-50mm/s
Bed temp.:	90-105°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	75°C for 6h
Annealing:	90°C for 2h

Material Properties



PolyMax™ PC

Key features

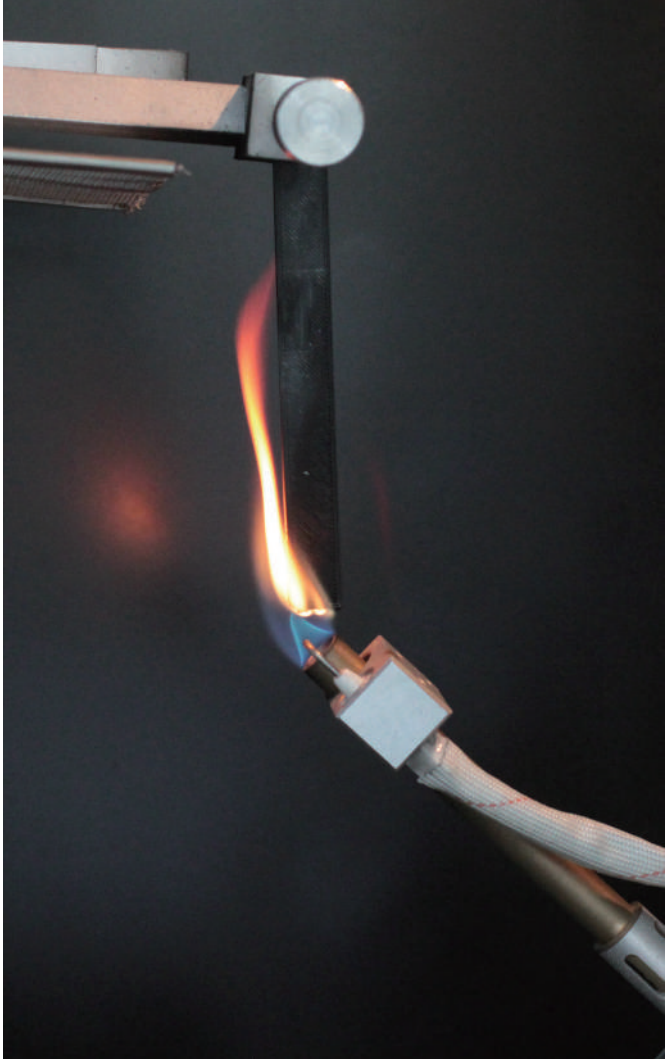
Extremely tough PC

Heat resistant

Good layer adhesion

PolyMax™ PC-FR

PolyMax™ PC-FR, creation from Covestro's Makrolon® family, could achieve V0 performance in the UL94 flame retardancy test and displays excellent toughness, strength and heat resistance. This filament opens new applications in the automotive, railway and aerospace industries.



Colors available

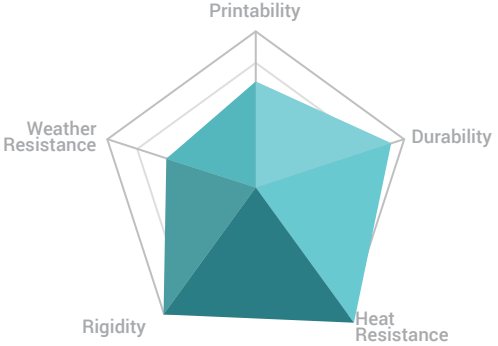
Applications

PolyMax™ PC-FR can reduce the intensity of a fire or slow/stop the spread of fire. PolyMax™ PC-FR satisfies UL 94 (plastics flammability standard) with the highest grading “V-0”. Many industries require this material ability such as automotive, railway, aerospace and aeronautical. PolyMax™ PC-FR unlocks 3D printing for these industries where compliance is critical.

Printing Settings

Printing temp.:	250-270°C
Printing speed:	30-50mm/s
Bed temp.:	90-105°C
Chamber temp.:	90-100°C
Fan:	Off
Drying settings:	75°C for 6h
Annealing:	90°C for 2h

Material Properties



PolyMax™ PC-FR

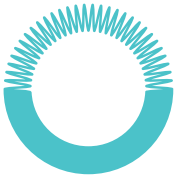
Key features

Flame retardant

Strong and tough

Heat resistant


@SamPurdie



PolyFlex™

PolyFlex™ is a family of high-quality flexible materials. It provides the perfect solution for applications where high flexibility and durability are required.

PolyFlex™ TPU90

PolyFlex™ TPU90, created from Covestro's Addigy® family, is a thermoplastic polyurethane (TPU) based filament designed to provide great flexibility without compromising printing speed. It also has the ability to resist ultra-violet (UV) light or sunlight.

Colors available

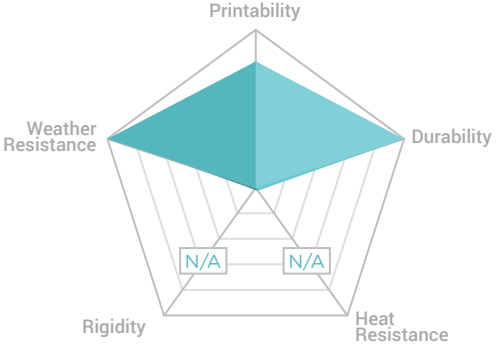
Applications

PolyFlex™ TPU90 is a flexible filament with a shore hardness of 90A. It offers great flexibility while maintaining reliable printability. Its UV resistance opens more outdoor applications where flexibility and durability are required.

Printing Settings

Printing temp.:	210-230°C
Printing speed:	30-60mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	70°C for 8h

Material Properties



PolyFlex™ TPU90

Key features

Flexible with shore 90A

Good printability

UV resistance

PolyFlex™ TPU95

PolyFlex™ TPU95 is a thermoplastic polyurethane (TPU) based filament specifically engineered to work on most desktop 3D printers. It has a shore hardness of 95A and can stretch more than 3 times its original length.

Colors available

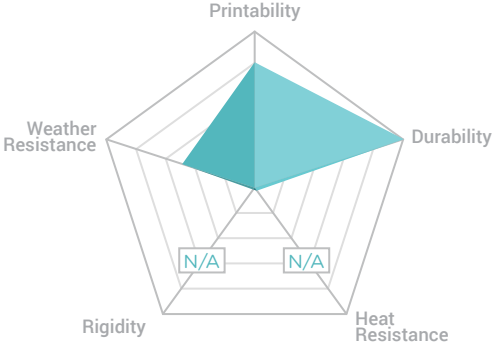
Applications

PolyFlex™ TPU95 is a flexible filament with a shore hardness of 95A. Thanks to 3D printing, a model can be made more or less flexible depending on its design and infill. PolyFlex™ TPU95 can be used in the footwear industry to print upper shoes, soles or insoles, to create flexible jigs and fixtures, and is commonly used to print custom gaskets.

Printing Settings

Printing temp.:	210-230°C
Printing speed:	20-40mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	70°C for 8h
Annealing:	N/A

Material Properties



PolyFlex™ TPU95

Key features

Flexible with shore 95A

Extremely durable

Good printability

PolyFlex™ TPU95-HF

PolyFlex™ TPU95-HF, created from Covestro's Addigy® family, is a TPU with high flow properties making it ideal for high speed printing. Combined with its UV resistance, PolyFlex™ TPU95-HF unlocks new applications for flexible materials in manufacturing.

Colors available

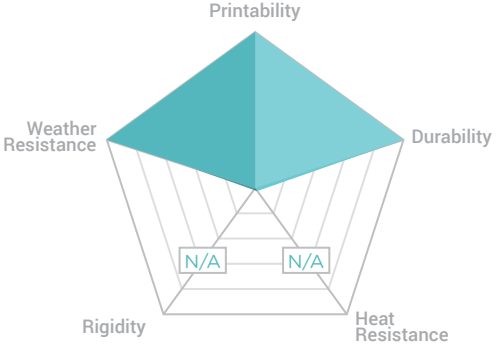
Applications

PolyFlex TPU95-HF is a flexible high flow filament with a shore hardness of 95A. Thanks to its high flowability, it prints incredibly fast. Combined with its UV resistance, PolyFlex TPU95-HF becomes a go-to material for functional prototyping, manufacturing tools or small batch manufacturing of durable and flexible parts.

Printing Settings

Printing temp.:	200-220°C
Printing speed:	40-100mm/s
Bed temp.:	25-50°C
Chamber temp.:	20-30°C
Fan:	ON
Drying settings:	70°C for 8h
Annealing:	N/A

Material Properties



PolyFlex™ TPU95-HF

Key features

Flexible with shore 95A

High flow

UV resistance


polymaker
LSEV
@XEV

PolyMide™

PolyMide™ is a family of Nylon/polyamide based filaments. Produced with Polymaker's Warp-Free™ technology, PolyMide™ filaments deliver engineering properties intrinsic to Nylon and ease of printing.

PolyMide™ CoPA

PolyMide™ CoPA is based on a copolymer of Nylon 6 and Nylon 6,6. The filament combines excellent strength, toughness, and heat resistance of up to 180˚C.

Colors available

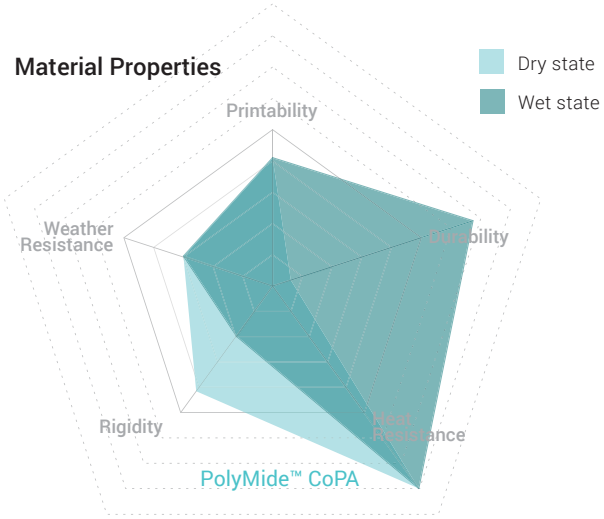
Applications

PolyMide™ CoPA provides excellent strength and heat resistance up to 180˚C. Warp-Free™ technology provides ease of printing with the outstanding mechanical and thermal properties natural to Nylon. PolyMide™ CoPA is suited for parts in very demanding environments such as gears, engine brackets, pipe connectors or high velocity air flows.

Printing Settings

Printing temp.:	250-270°C
Printing speed:	30-60mm/s
Bed temp.:	25-50°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	100°C for 8h
Annealing:	80°C for 6h

Material Properties



Key features

High heat resistance

Balanced mechanical properties

Dimensionally stable during printing

PolyMide™ PA612-CF

PolyMide™ PA612-CF is a carbon fiber reinforced long chain copolyimide filament. Thanks to its chemical structure, this product has lower moisture sensitivity compared to PA6/66 and PA6-based materials, and better mechanical properties than PA12-based materials. In addition, the carbon fiber reinforcement and Warp-Free™ technology enhance the size stability of the prints produced with this material.

Colors available

●

Applications

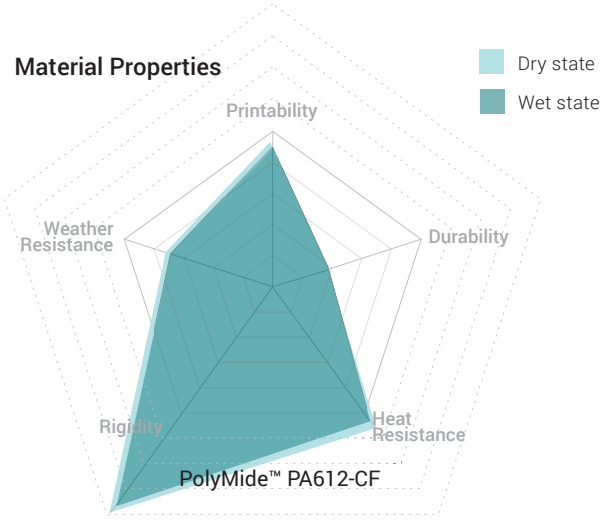
PolyMide™ PA612-CF has excellent mechanical and thermal properties as well as good size stability. It offers huge potential to industrial and engineering tooling, automotive, and end-use applications.

Printing Settings

Printing temp.:	250-300°C
Printing speed:	30-60mm/s
Bed temp.:	25-50°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	100°C for 8h
Annealing:	80°C for 6h

*hardened nozzle required

Material Properties



Key features

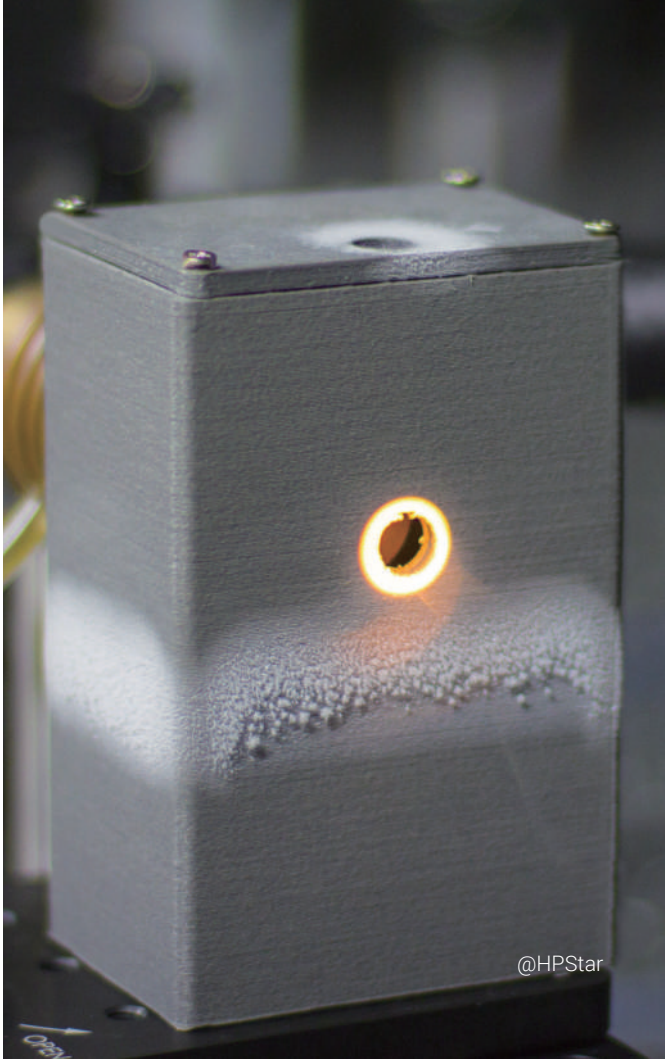
Low moisture sensitivity

Excellent mechanical properties

Prints Reliably

PolyMide™ PA6-GF

PolyMide™ PA6-GF is a glass fiber reinforced PA6 (Nylon 6) filament. The material exhibits excellent thermal and mechanical properties without sacrificing the layer adhesion.



Colors available

Applications

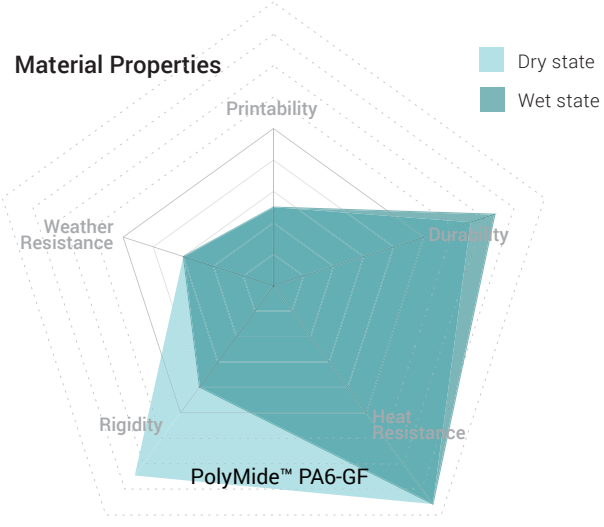
PolyMide™ PA6-GF is strong, durable and features an excellent heat resistance. It can be used in applications requiring stiffness and durability such as lab equipments, brackets, jigs, fixtures, drone frames or prosthetics.

Printing Settings

Printing temp.:	280-300°C
Printing speed:	60mm/s
Bed temp.:	30-60°C
Chamber temp.:	25-50°C
Fan:	Off
Drying settings:	100°C for 8h
Annealing:	80°C for 6h

*hardened nozzle required

Material Properties



Key features

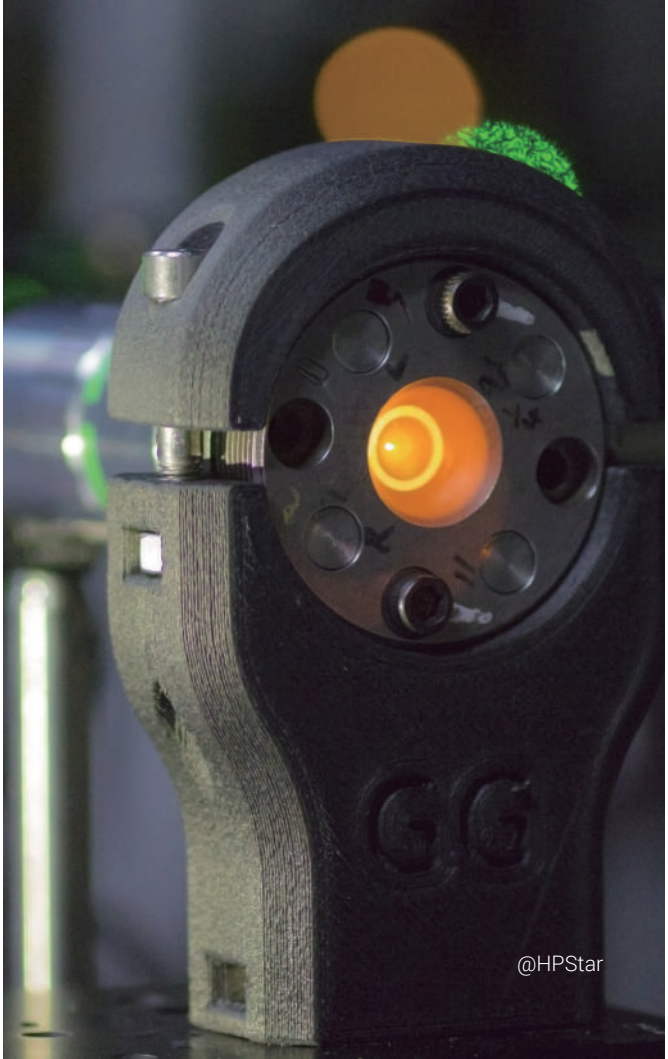
High heat resistance

Excellent isotropic mechanical properties

Dimensionally stable during printing

PolyMide™ PA6-CF

PolyMide™ PA6-CF is a carbon fiber reinforced PA6 (Nylon 6) filament. The carbon fiber reinforcement provides significantly improved stiffness, strength and heat resistance with outstanding layer adhesion.



Colors available

Applications

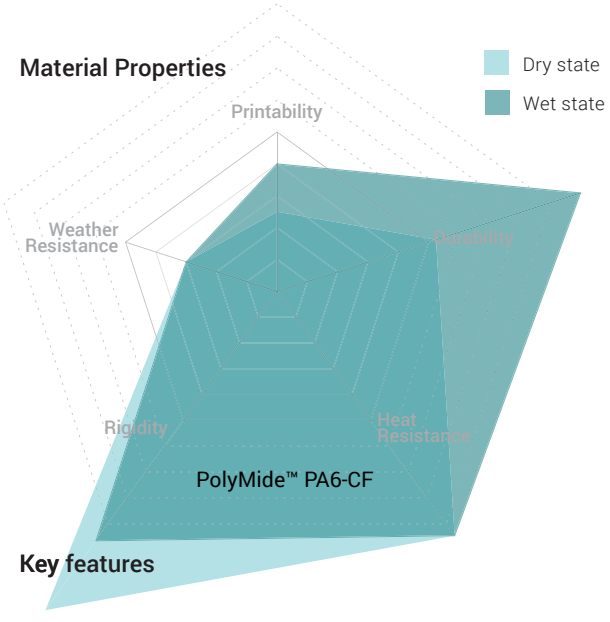
PolyMide™ PA6-CF outperforms almost every 3D printing material offering extreme durability and functionality. It features a heat deflection temperature of 215°C and can be used in applications requiring stiffness and durability such as automotive brackets, jigs, ESD safe fixtures, aerospace, prosthetics and engineering.

Printing Settings

Printing temp.:	280-300°C
Printing speed:	60mm/s
Bed temp.:	30-60°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	100°C for 8h
Annealing:	80°C for 6h

*hardened nozzle required

Material Properties



Key features

High heat deflection temperature

Excellent isotropic rigidity

Dimensionally stable during printing

PolyMide™ PA12-CF

PolyMide™ PA12-CF is a carbon fiber reinforced PA12 (Nylon 12) filament. Thanks to the low moisture sensitivity of PA12, this product features outstanding mechanical and thermal properties even after the moisture conditioning process. Combined with its ease of print with Warp-Free™ technology, this product is ideal to create manufacturing tools.

Colors available

●

Applications

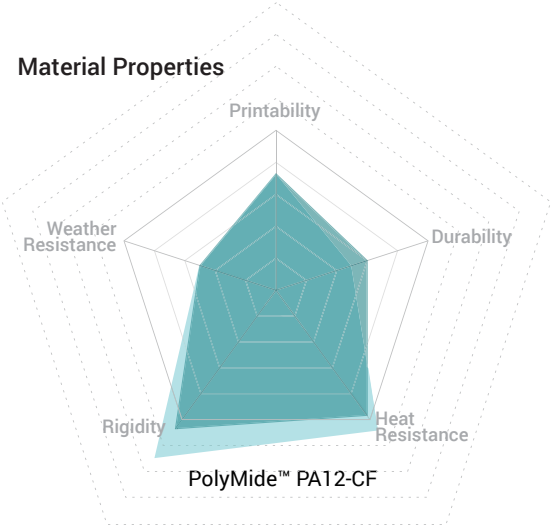
PolyMide™ PA12-CF has excellent mechanical and thermal properties as well as a low moisture sensitivity. With its excellent surface finish and dimension accuracy, it is a good candidate material for producing jigs and fixtures to increase production efficiency.

Printing Settings

Printing temp.:	260-300°C
Printing speed:	30-60mm/s
Bed temp.:	25-50°C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	100°C for 8h
Annealing:	80°C for 6h

*hardened nozzle required

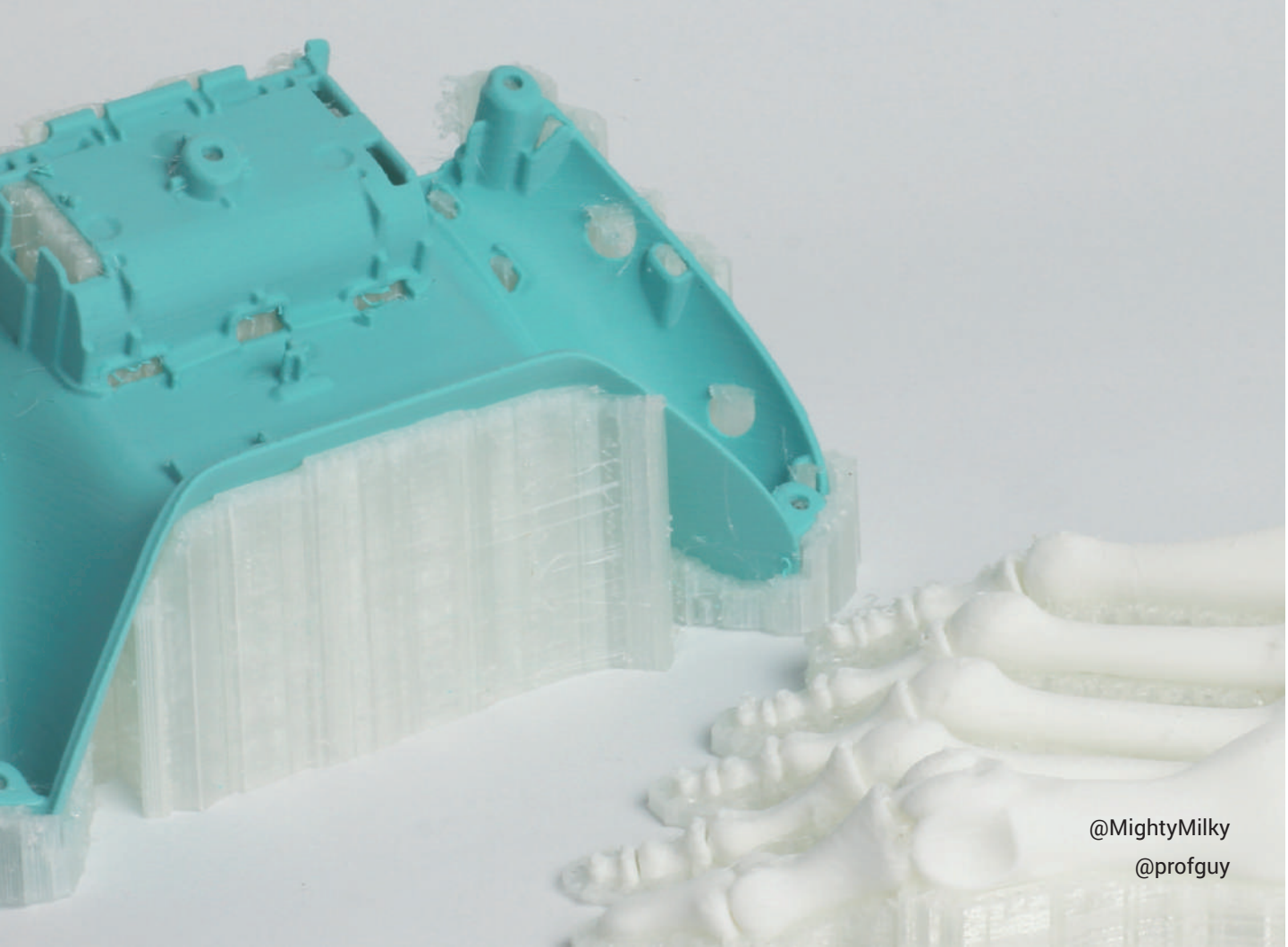
Material Properties



Key features

Low moisture sensitivity

Excellent surface finish

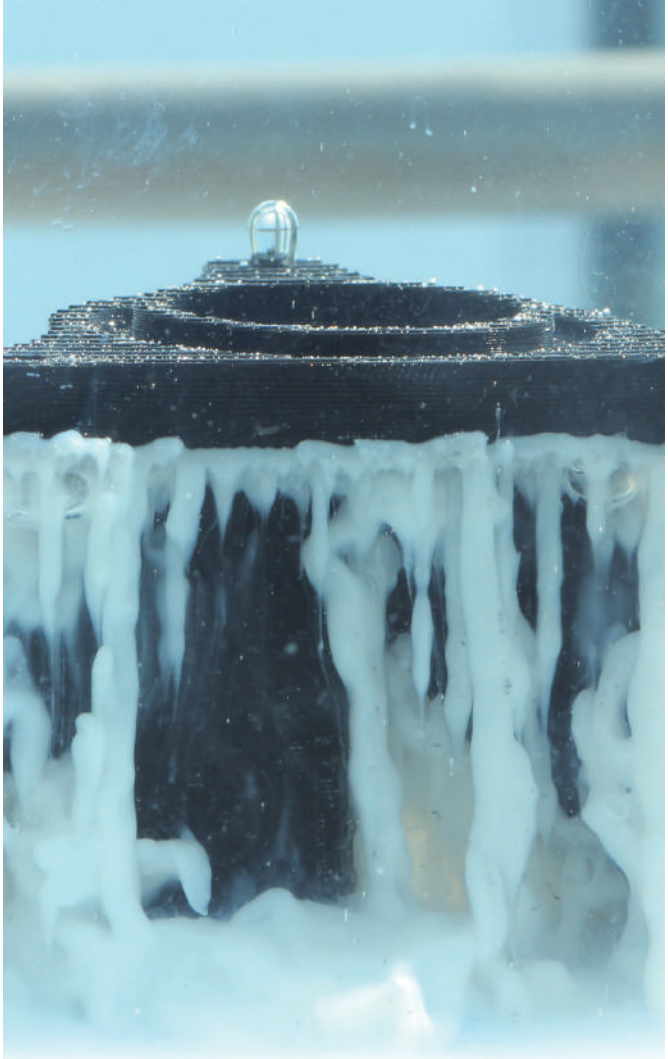

@MightyMilky
@profguy

PolyDissolve™

PolyDissolve™ is a family of dissolvable support filaments. This family offers a support solution for our whole portfolio of filaments. By unlocking new geometries it enables a greater freedom of design.

PolyDissolve™ S1

PolyDissolve™ S1 is a water dissolvable support for PLA, TPU, PVB and Nylon based filaments from our portfolio. It is specifically engineered to have a perfect interface with these materials while also displaying good solubility.



Colors available

Applications

PolyDissolve™ S1 is ideal for printing complex geometries such as art sculptures, figurines, models with internal cavities, all-in-one mechanisms or architectural models.

Printing Settings

Printing temp.:	215-225°C
Printing speed:	30-40mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	80°C for 12h
Annealing:	N/A

Compatibility

PLA based material	++
PETG based material	+
ABS/ASA based material	--
PC based material	--
PVB based material	++
TPU based material	++
Short-chain Nylon based material	--
Long-chain Nylon based material	-

From Polymaker™ portfolio

Key features

Compatible with multiple materials

Good solubility

Excellent support interface

Specialty

The Specialty family provides unique filaments from Polymaker to unlock new 3D printing applications.

PolySmooth™

PolySmooth™ is a unique, easy-to-print filament designed for hands-free post processing. The surface can be smoothed with alcohol to achieve layer free models using the Polysher™.

Colors available

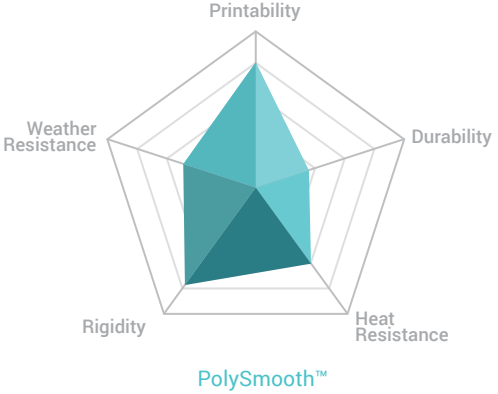
Applications

PolySmooth™ offers the possibility to easily post process a model to obtain a smooth surface. PolySmooth™ is designed for models which are hard to sand and post process such as figurines and cosplay props. PolySmooth™ is also the ideal choice for product design and prototyping to present a clean design replicating an injection molded surface.

Printing Settings

Printing temp.:	190-220°C
Printing speed:	40-60mm/s
Bed temp.:	25-70°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	50°C for 12h
Annealing:	N/A

Material Properties



Key features

Safe and easy to post process

Excellent printability

Balanced mechanical properties

PolyWood™

PolyWood™ is a wood mimic filament containing no actual wood powder, which removes all risks of nozzle clogs. PolyWood™ is made entirely with PLA using a special foaming technology. It exhibits the same density and appearance as wood with a unique matte finish.

Colors available

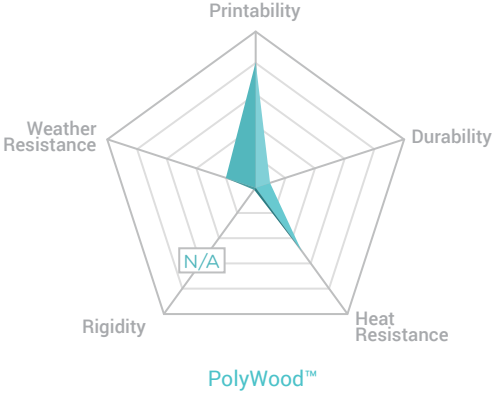
Applications

PolyWood™ delivers an incredible surface finish which makes it is a unique material choice for aesthetic applications such as architectural models, figurines, gaming dioramas, decoration or lifestyle parts.

Printing Settings

Printing temp.:	190-210°C
Printing speed:	30-50mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Material Properties



Key features

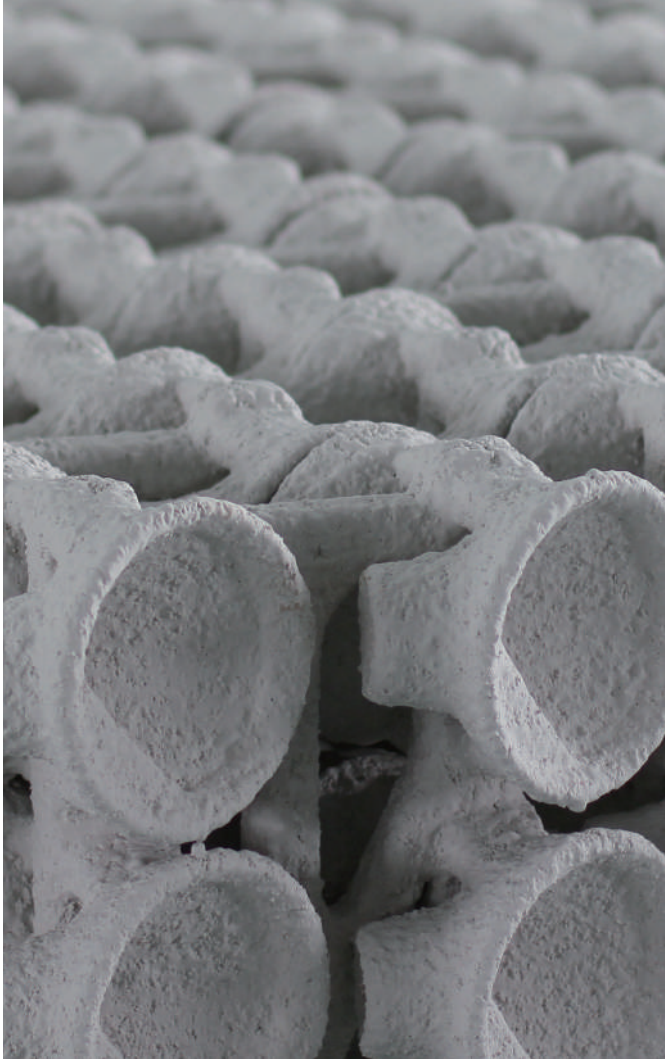
No risk of clogging

Clean matte finish

Light weight

PolyCast™

PolyCast™ is a filament designed to produce investment patterns for investment casting applications. 3D printing significantly cuts down both the cost and lead time by eliminating the tooling process.



Colors available

Applications

PolyCast™ is specifically designed to print patterns for metal investment casting. PolyCast™ features Ash-Free™ technology typically leaving an ash residue of 0.003% when burnt out at temperatures >600°C. For quick design iteration, metal prototyping or unique one-off casts, PolyCast™ offers a solution.

Printing Settings

Printing temp.:	190-220°C
Printing speed:	40-60mm/s
Bed temp.:	25-70°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	50°C for 12h
Annealing:	N/A

Key features

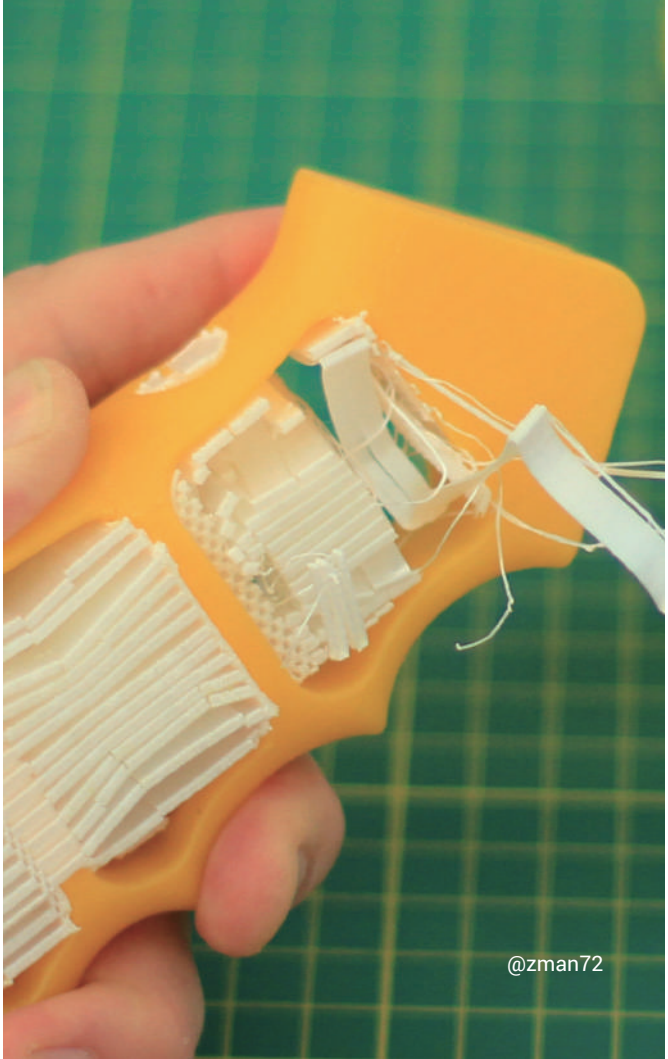
Burn out cleanly

Safe and easy to post process

Excellent printability

PolySupport™

PolySupport™ is a break away support for Polymaker PLA based filaments. It has a perfect interface with PLA, strong enough to support it and easily removable by hand.



Colors available

Applications

PolySupport™ is a breakaway support material which can be removed very easily. It's advantage over dissolvable support is that its faster to remove and requires no tools or equipment. For geometric overhangs such as boxes, architectural models or brackets, PolySupport™ will offer a better experience than dissolvable support.

Printing Settings

Printing temp.:	220-230°C
Printing speed:	20-40mm/s
Bed temp.:	25-60°C
Chamber temp.:	N/A
Fan:	On
Drying settings:	55°C for 6h
Annealing:	N/A

Compatibility

PLA based material	++
PETG based material	-
ABS/ASA based material	-
PC based material	+
PVB based material	+
TPU based material	+
Short-chain Nylon based material	--
Long-chain Nylon based material	--

From Polymaker™ portfolio

Key features

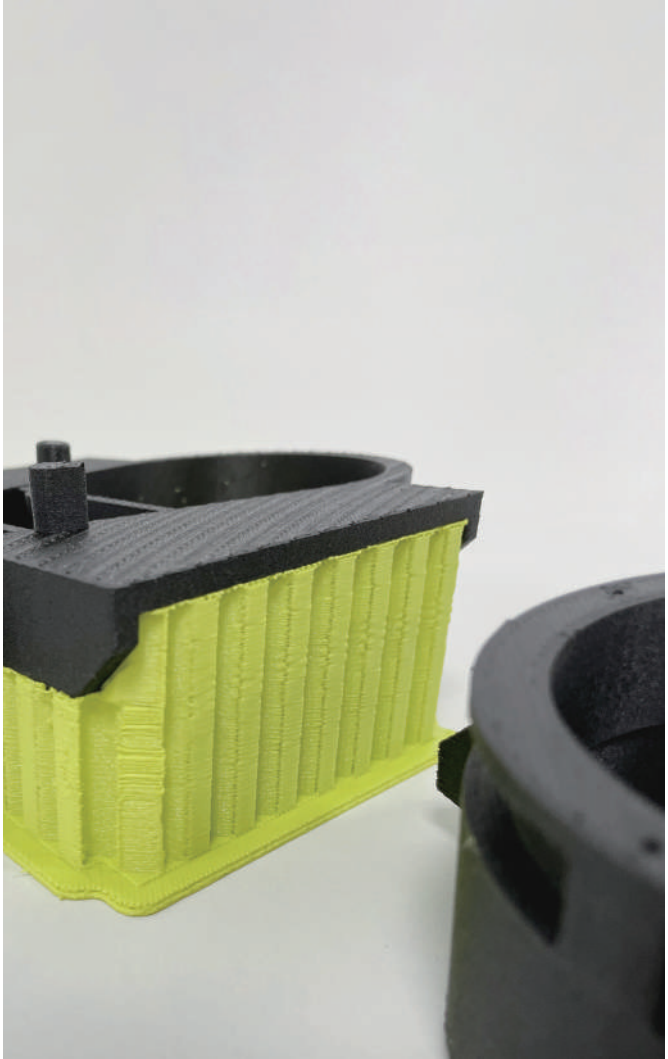
Easy to break away

Perfect support interface with PLA

Good printability

PolySupport™ for PA12

PolySupport™ is a break away support for Polymaker PA12 based filaments, such as PolyMide ™ PA12-CF. It has a perfect interface with long-chain Polyamide, strong enough to support it and easily removable by hand.



Colors available

Applications

PolySupport™ for PA12 is ideal to print models with PA12 based material that requires support as it can be easily removed. It is a smart choice over dissolvable support for geometric models such as jigs and fixtures as it can be removed much easier and faster.

Printing Settings

Printing temp.:	270-300˚C
Printing speed:	30-60mm/s
Bed temp.:	50-80˚C
Chamber temp.:	N/A
Fan:	Off
Drying settings:	100˚C for 8h
Annealing:	N/A

Compatibility

PLA based material	NA
PETG based material	NA
ABS/ASA based material	NA
PC based material	NA
PVB based material	NA
TPU based material	NA
Short-chain Nylon based material	NA
Long-chain Nylon based material	++

From Polymaker™ portfolio

Key features

Easy to break away

Prefect support interface with PA12 based material

Good printability

Polymaker™ PC-ABS

Polymaker™ PC-ABS is a PC/ABS polymer blend which offers excellent toughness and heat resistance while displaying a good surface finish and good compatibility with metal plating.

Colors available

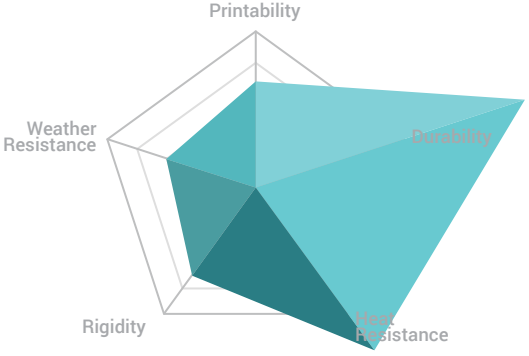
Applications

Polymaker™ PC-ABS characteristics make it ideal for automotive interior parts such as dashboard, door handles or instrument panels. Polymaker™ PC-ABS is very easy to metalize which makes it an ideal choice for lighting reflectors.

Printing Settings

Printing temp.:	250-270°C
Printing speed:	30-50mm/s
Bed temp.:	90-105°C
Chamber temp.:	90-100°C
Fan:	Off
Drying settings:	75°C for 6h
Annealing:	90°C for 2h

Material Properties



PolyMaker™ PC-ABS

Key features

Excellent toughness and heat resistant

Good surface finish

Compatible with metal plating

Polymaker™ PC-PBT

Polymaker™ PC-PBT is a PC/PBT polymer blend which offers good heat resistance and toughness at low temperatures (-20˚C/-30˚C). Polymaker™ PC-PBT also features good chemical resistance.

Colors available

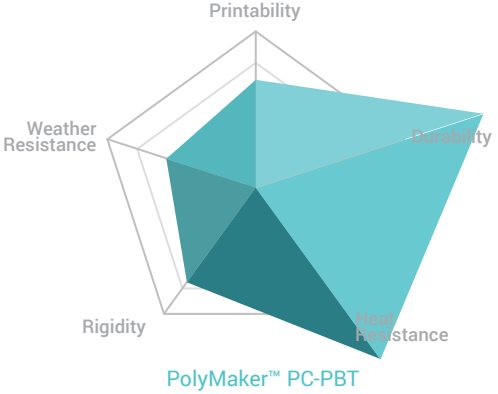
Applications

Polymaker™ PC-PBT characteristics make it ideal for automotive exterior parts such as bumpers, roof rail brackets or door handles. Polymaker™ PC-PBT is also a good choice for electronic device covers/ bases such as VR/AR headsets, gadget housing or battery housings.

Printing Settings

Printing temp.:	260-280°C
Printing speed:	30-50mm/s
Bed temp.:	100-115°C
Chamber temp.:	100-110°C
Fan:	Off
Drying settings:	75°C for 6h
Annealing:	90°C for 2h

Material Properties



Key features

Good mechanical and thermal properties

Good toughness at low temperature

Good chemical resistance

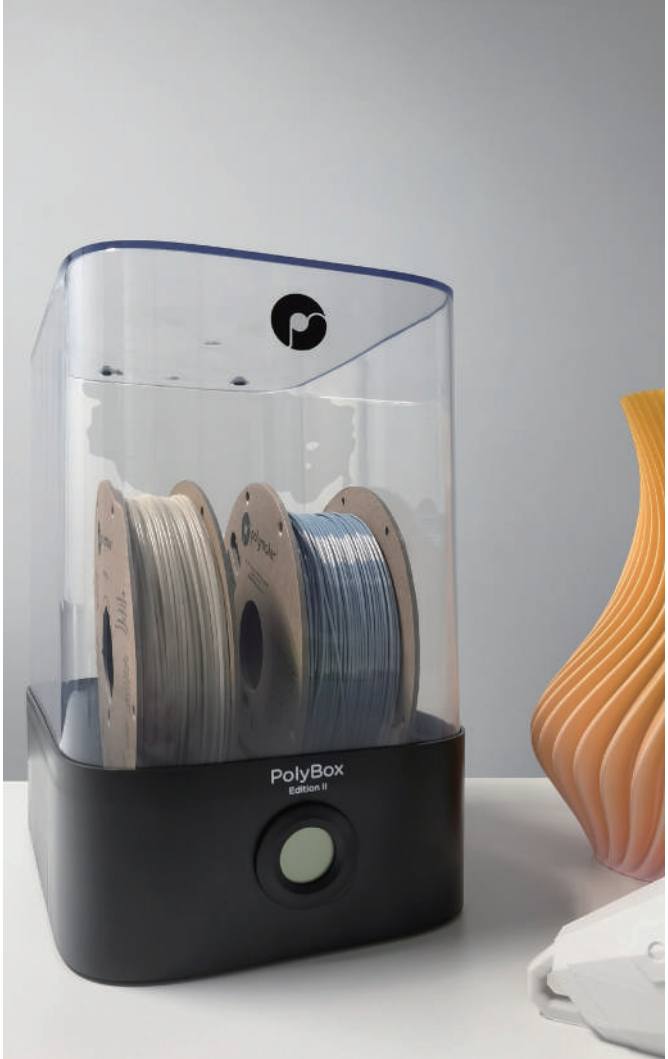

PolyBox
Edition II

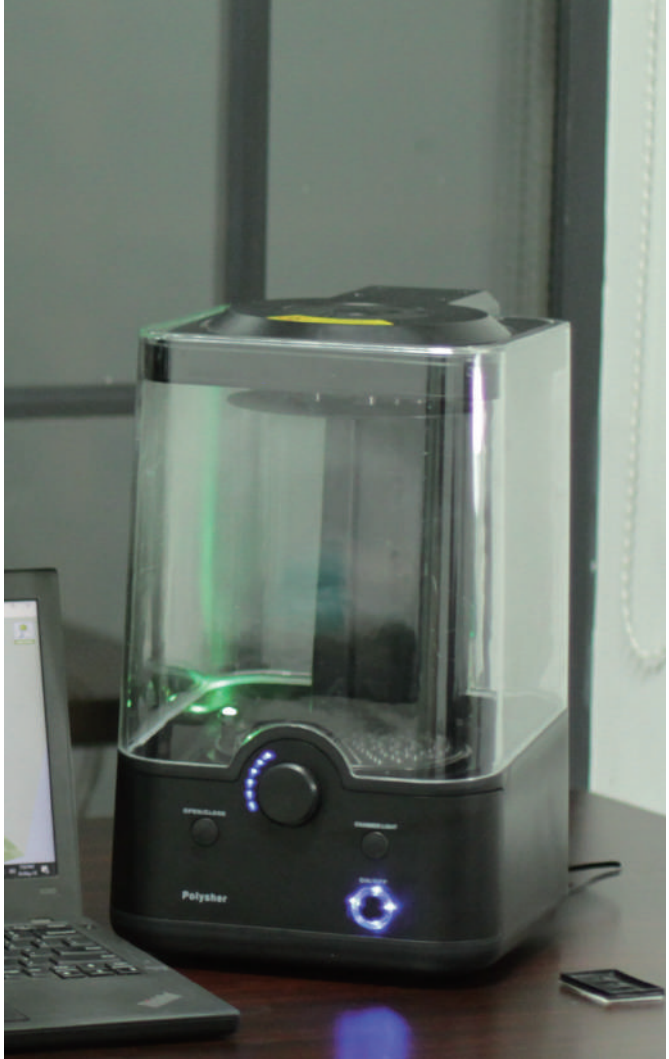
Hardware

Polymaker Hardware family offers 3D printing accessories to optimize the user experience with their filaments.

PolyBox™

PolyBox™ is a dry storage box designed to provide the optimum environment for 3D printing filaments. The PolyBox™ is compatible with all 3D printers and can house two 1kg spools or one 3kg spool.





Polysher™

The Polysher™ is a desktop post processing unit designed to remove layer lines from PolySmooth™ and PolyCast™ prints. The Polysher™ uses Polymaker's Layer-Free™ technology to create a fine mist of alcohol which evenly smooths the model.

Sample Box 1

The Sample Box 1 contains 7x50g samples:

PolyLite™ PLA
PolyLite™ PETG
PolyMax™ PLA
PolyMax™ PETG
PolyFlex™ TPU95
PolyWood™
PolySmooth™

All materials in Sample Box 1 are easy to use and are compatible with most 3D printers.

Sample Box 2

The Sample Box 2 contains 7x50g samples:

PolyLite™ ABS
PolyLite™ ASA
PolyLite™ PC
PolyMax™ PC
PolyMide™ CoPA PolyDissolve™ S1
PolySupport™

Theses samples require a 3D printer with enclosure or with dual extrusion capabilities.

Sample Box 3

The Sample Box 3 contains 2x100g samples:

PolyMide™ PA6-GF
PolyMide™ PA6-CF

These samples require a 3D printer capable of reaching a nozzle temperature of 300˚C and equipped with an abrasion resistant nozzle.

Sample Box 4

The Sample Box 4 contains 5x50g samples:

PolyLite™ PC
PolyMax™ PC
PolyMax™ PC-FR
PolyMax™ PC-ABS
PolyMax™ PC-PBT
Includes a Magigoo PC sample

These samples require a 3D printer with enclosure for better part performance.

PolyCore™

Polymaker pellet product, PolyCore™ is a new range of polymer composites and compounds with optimized size-stability and layer adhesion, designed specifically for large-scale material-extrusion based 3D printing technologies, e.g. Big Area Additive Manufacture (BAAM) and Medium Area Additive Manufacture (MAAM).

Product	Description	Key Features	Typical Applications
PolyCore™ ASA-3012	20% glass fiber reinforced ASA	• Excellent weather resistance • Good colorability • Cost effective	• Architecture (Out-door structures) • Furniture • Low- to mid-temperature tooling
PolyCore™ ABS-5022	20% carbon fiber reinforced ABS	• Good mechanical and thermal properties • High thermal conductive with low CTE	• Low- to mid-temperature tooling • Lower CTE
PolyCore™ ABS-5012	20% glass fiber reinforced ABS	• Good colorability • Cost-effective	• Low- to mid-temperature tooling • General prototyping
PolyCore™ PETG-1000	PETG based compound	• Easy to print – longer layer time • Transparent	• Architecture • Furniture & decoration parts
PolyCore™ PETG-1013	30% glass fiber reinforced PETG	• Excellent weather resistance • Excellent size-stability • Cost-effective	• Architecture (Out-door structures) • Furniture • Low- to mid-temperature tooling
PolyCore™ PETG-1211	10% glass fiber reinforced PETG, featured with easy printability	• Outstanding printability • Suitable for MAAM printing • Cost-effective	• Furniture • Out-door applications like landscape architecture
PolyCore™ PC-7414	40% glass fiber reinforced PC	• Good heat resistance • Good mechanical strength	• Middle temperature tooling
PolyCore™ TPU-2000	TPU based compound	• ~ 95 shore A	• Large seals

World's largest, fully 3D printed bridge Printed with PolyCore™ ASA-3012

Composite Tooling in Automobile Printed with PolyCore™ ABS-5022

Custom Furniture & Decoration Parts Printed with PolyCore™ ASA-3012

New Packaging

The replacement of the Cardboard Spool

Green source:

The cardboard used to create the spool and packaging comes from 100% recycled sources and is recyclable after use in generic paper recycling.

Outer design:

The new cardboard spool features a thick, around 3mm pressed and die-cut cardboard spool face, glued onto a strip rolled section of the cardboard tube. The thickness of the cardboard ensures the filament is well protected and the spool can roll very efficiently on all designs of spool holders both internally and externally mounted.

The addition of QR code:

The new spool features a QR code that takes customers to the product information sheet on www.polymaker.com alongside printing profiles, TDS, SDS, and all other documentation relevant to the filament. The paper product information sheet will no longer be shipped inside the packaging further reducing waste.

Polymaker Offices

Shanghai, China

Changshu, China

Houten, The Netherlands

Houston, USA

Mission

Polymaker is committed to simplifying creation by developing empowering 3D printing & material technologies for industries and consumers.

Our Values

Entrepreneurial

Responsible

Customer Oriented

Embracing Innovation

Contact Us

For any inquiries please contact:

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For technical support please contact:

support@polymaker.com

Simplify Creation

polymaker