



3D Printing Filament Comparison

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	Print Temp	Bed Temp	Strength	Flexibility	Durability	Difficulty	Shrinkage	Soluble	Food Safe*	Blue Tape	Glue Stick	Typical Uses
ABS Acrylonitrile Butadiene Styrene								Acetone	No			Functional Parts
ASA Acrylonitrile Styrene Acrylate								Acetone	No			Outdoor Use
Carbon Fiber Carbon Fiber and PLA blend								No	No			Functional Parts
Cleaning Cleaning Filament												Nozzle Cleaning / Unclogging
Color Changing PLA or ABS with color changing properties								No	No			Educational, Modelling
Conductive Conductive PLA or ABS								No	No			Electronics
Flexible, TPE, TPU Thermoplastic Urethane / Polyurethane								No	No			Elastic Parts, Wearables
FPE Flexible Polyester								No	Yes			Flexible Parts
Glow-In-The-Dark Glow in the dark PLA or ABS								No	No			Educational, Modelling
HIPS High Impact Polystyrene								Solvent	No			Support Structures
Lignin (bioFila) Lignin and PLA plus additives								No	Yes			All Purpose
Magnetic PLA with powdered iron								No	No			Educational, Experimental
Metal PLA / ABS Metal Powder and PLA or ABS blend								No	No			Jewelry
nGen Similar to PETG								No	Yes			All Purpose
Nylon Polyamide								No	Yes			All Purpose
PC Polycarbonate								Acetone	No			Functional Parts
PC/ABS Polycarbonate ABS								No	No			Functional Parts
PET (CPE) Polyethylene Terephthalate								No	Yes			All Purpose
PETG (XT, N-Vent) Poly-Ethylene Terephthalate Glycol								No	Yes			All Purpose
PETT (T-Glase) PolyEthylene coTrimethylene Terephthalate								No	Yes			Functional Parts
PLA Polylactic Acid								No	Yes			Consumer Products
PMMA, Acrylic Polymethyl Methacrylate								Acetone	No			Light diffusers, Modelling
POM, Acetal Polyoxymethylene								Chemical	No			Functional Parts
PORO-LAY Rubber-elastomeric polymer with PVA								Water	Yes			Experimental
PP Polypropylene								No	Yes			Flexible Components
PVA Polyvinyl Alcohol								Water	Yes			Support Structures
Sandstone (Laybrick) Co-polyester and chalk powder								No	No			Architectural Modelling
TPC Thermoplastic Copolyester								No	No			Elastic Parts, Outdoor Use
Wax (MOLDLAY) Wax-like properties								No	No			Lost Wax Casting
Wood (Laywood) Wood PLA Blend								No	No			All Purpose (natural finish)