Materials Information			**Multi material printing can be used in certain circumstances.**	
Filaments	Cost	Notes	Extra Notes	
Polylactic Acid **(PLA)**	$20-40/kg	Cheapest	Most cost-effective, biodegradable but not durable at high temperatures	
Polyethylene Terephthalate Glycol **(PETG)**	$30-50/kg	Must be kept totally dry	Often stronger and more flexible than either PLA or ABS	
Acrylonitrile Butadiene Styrene **(ABS)**	$30-60/kg	Requires Ventilation	Heat Resistent, Heated Bed / Enclosed Chamber Preferrable	
Thermoplastic Polyurethane **(TPU)**	$40-60/kg	Flexible and durable	Phone cases, gaskets, many wearable items	
Nylon	$50-100/kg	Resistant to wear	Ideal for parts that need to endure lots of stress	
Metal Filaments (for FDM printers)	$100-300/kg	Metallic Finish, more durable	Typically a blend of metal powder and plastic such as copper or bronzeFill	
Specialty Materials				"+% cost to customer"
Carbon Fiber Reinforced Filaments	$60-80/kg	Standard (CF-PLA)	Parts requiring a high strength-to-weight ratio	~150-200%
	$70-90/kg	CF-PETG		
	$120-150/kg	CF-Nylon		
	$150-200/kg	Professional Composites		
			High heat applications and artistic works	~200-250%
Ceramic Filaments	$80-100/kg	Basic Ceramic Infused PLA		
	$150-200/kg	Industrial Composite Ceramics		
	$200-300/kg	High-end Technical Cermanics		
Polycarbonate **(PC)**	$50-70/kg	Standard PC	Very Strong, High heat, and industrial applications	~125-150%
	$60-80/kg	PC-ABS Blends		
	$80-100/kg	High Temperature PC		
	$90-120/kg	Flame-retardent		
Polypropylene **(PP)**	$10-30/kg	Low melting point	Lightweight, chemically resistant, and flexible. Resistent to bending (fatigue resistence).	~140-160%
Polyamide **(PA)**	$40-100/kg	Highly Durable and resistant to wear	Frequently used for making gears, bearings, and mechanical parts. Excellent chemical resistance, particularly to oils, greases, and solvents. Flexible and abrasion-resistant, but it can absorb moisture from the air, which can affect print quality.	~150-200%
		High Temperature PC		
Acrylic Butadiene Styrene **(ABS)**	$25-50/kg	Transparant and/or smooth finish	Used in producing transparent parts and for applications where surface finish quality is important.	~130-170%
Acrylonitrile Styrene Acrylat **(ASA)**	$40-90/kg	Often used for outdoor, or automotive parts; as it resists degradation from UV exposure	Very similar to **ABS** (Acrylonitrile Butadiene Styrene) but with better UV stability. UV-resistant and weather-resistant, meaning it's great for outdoor applications. Easier to print with than ABS due to less warping.	~150-170%
Nozzles				
Nozzles last for approximately 100-200 printing hrs			ABS and Nylon leave the most residue on nozzles, requiring mantenance	