realize the unrealistic

Stock Selective Laser Sintering (SLS) Materials

Material	Finish & Appearance	Advantages & Considerations
STOCK / NYLON 12		
PA2201 Standard	Color: White Develops a patina with air exposure, that does not affect its mechanical properties Can be tumbled, dyed, painted, glued, drilled, tapped, and machined	Ideal for most applications Melting point around 325°F No porosity with wall thicknesses 1.5 mm (> 0.060") Exceptional chemical, fuel, and UV-resistant Used for fuel and liquid storage FDA certified (21 CFR §177.15009(b)) food safe, except for alcohol
PA615-G5 Glass Filled	Color: Eggshell – slightly creamy white 50% fill of glass beads	Strong and durable Excellent dimensional stability Popular for tooling applications Produces a very heavy part as compared to all the other materials

Non-stock* Selective Laser Sintering (SLS) Materials

Material	Lead Time	Finish & Appearance	Advantages & Considerations
NON-STOCK* / NYLON 12			
PA2200 Ultra-White		Color: Bright White – with a Titanium Dioxide Whitener Highly workable for secondary operations Can be tumbled, dyed, painted, glued, drilled, tapped, and machined	Durable and rugged Chemical resistant Economical Melting point around 325°F USP Class VI certified for biocompatibility (non-toxic to human cells)
PA603-CF Carbon Fiber Filled		Color: Gray/Black Extreme smoothness when processed with our secondary finishing operations	High tensile strength Suited for applications where a high heat tolerance, strength, and resistance to wear are of paramount importance Superior stiffness factor compared to High Performance Nylon 12
PA620-MF Mineral Fiber Filled		Color: Off-white	Strong and durable – lighter when compared to glass-filled materials Good dimensional stability, without the brittleness of carbon fiber Greater mechanical stability than unfilled materials

Non-stock Materials – continued next page

Non-stock* Selective Laser Sintering (SLS) Materials

Material	Finish & Appearance	Advantages & Considerations
NON-STOCK* / NYLON 12 (continued)		
PA606-FR Fire Retardant	Color: White Parts will exhibit a smooth surface finish and sharp feature detail Mechanical properties are similar to standard Nylon 12	For applications where FAR certification is required (meets FAR 25.853 60 second burn specification) Suitable for interiors of aircraft, automotive, and other commercial transportation vehicles Excellent for laboratory ventilation and air handling
Alumide Aluminum Filled	Color: Metallic silver appearance Easy post processing via machining, grinding, and/or milling Secondary polishing processes provides a surface with a metallic-looking finish	High stiffness Superior dimensional accuracy Good thermal conductivity Aluminum powder creates a product that is somewhat brittle – not recommended for structural applications **WARNING!** This product should not be used in any application where contact with foodstuffs would be possible
PA640-GSL Carbon Fiber/ Glass Filled	Color: Dark Grey	Carbon fiber increases the dimensional stability Hollow glass beads add increased durability Very lightweight – developed for the UAV industry
NON-STOCK* / NYLON 11		
PA850-BLK Black	Color: Black	For applications that require slightly higher tensile strength at break, along with a higher elongation factor All-weather performance, it excels in extreme climates; high impact resistance at sub-zero temperatures and high-pressure resistance Low coefficient of friction Not bio-compatible
PA840-GSL Carbon Fiber Glass Filled	Color: Dark Grey	Carbon adds dimensional stability Hollow glass beads Increase durability over unfilled Nylon 11 Additional flexibility with Nylon 11-based material Very light compared to other materials Electrically conductive, due to carbon content Specifically developed for the UAV industry

**Non-Stock materials are by the build. Increased lead times.*

SLS Printers – Printer Chamber Size and Thickness

P730 / P760: 700 x 380 x 580 mm (27.5" x 14.9" x 22.8") – **P730:** 0.12 mm / **P760:** 0.06-0.10-0.12-0.15-0.18 mm
P390: 340 x 340 x 620 mm (13.3" x 13.3" x 24.4") – 0.1-0.15 mm