

Standard Plastic Additive Materials (Not all materials are listed. Ask your account manager about availability)

Material	Description	Process	Production Equivalent	Color	Tensile Strength (Mpa)	Elongation at Break	Flex Modulus (Mpa)	Impact Strength (J/m)	Heat Deflection (66PSI)	Flame Rating	Bio-Compatible	Applications
	A summary of each material and is a quick way to find which material best fits your needs.	This is the actual 3D printing technology that is used with the given material.	Each material was developed to mimic an actual production plastic material. See which one matches your end use production material.	Each material has its own unique color. Some are offered in multiple colors or can be made into a color of your choosing.	The resistance of a material to breaking under tension. ASTM D638 for Rigid Material & ASTM 412 for Elastic.	Also known as fracture strain, it is the ratio between changed length and initial length after breakage. It is the capability of the material to resist change of shape without cracking. ASTM D638 for Rigid Material & ASTM 412 for Elastic.	Flexural Modulus or Bending Modulus is the ratio of stress to strain in flexural deformation, or the tendency for a material to bend. ASTM D790.	The capability of the material to withstand sudden applied load. This is a measurement of impact energy to fracture. ASTM D256.	The temperature at which a plastic material deforms under a specified load. ASTM D648.	The UL 94 safety standard for flammability. UL 94 HB is the lowest flame rating and UL 94 5VA is the highest rating.	Bio-compatible rating is if the material is harmful to living tissue. If the material is rated it will be a ranking for different levels of approval like skin contact or implantable.	A quick guide for the best usage of each material with how it is used and what it can be used for.
CE	Rigid & High Heat	Carbon DLS	Glass Filled Nylon	Amber	92	3.30%	3780	15	231C / 448F	NA	Yes	Production high heat resistant parts, Testing, Fit & Function
DPR	Dental Modeling	Carbon DLS	NA	Grey	46	4%	2250	20	61C / 142F	NA	NA	Dental Modeling and Prototyping
EPU	Elastic 68 Shore A	Carbon DLS	TPU	Black	10.2	310%	NA	NA	NA	NA	Yes	Tear Strength 23kN/m, Elastic Production Parts, Gaskets
EPX	Rigid & Accurate	Carbon DLS	Glass Filled PBT	Black	88	5.20%	3250	23	140C / 284F	NA	NA	Production parts, Connectors, Testing, Fit & Function
FPU	Durable & Tough	Carbon DLS	PP	Black	29	7%	831	40	78C / 172F	NA	NA	Impact & Abrasion resistant, Production Parts, Living Hinges
MPU	Biocompatible, Sterilizable, and Durable	Carbon DLS	ABS	White	38	25%	1000	29	48C / 110F	NA	Yes	Medical Products & Devices, Passes USP-VI, ISO 10993-5 & -10
RPU	Rigid & Tough	Carbon DLS	ABS	Black	45	100%	1800	22	70C / 160F	UL 94 HB	Yes	Tough, Production Parts, Housings & Enclosures
SIL	Soft Touch, Tear Resistant, Skin Contact	Carbon DLS	Silicone	Grey	3.4	330%	NA	NA	NA	NA	Yes	Tough, Production Parts, Housings & Enclosures
UMA	Rigid & Durable	Carbon DLS	ABS	Grey or Any Color	46	17%	2010	33	51C / 124F	NA	NA	Custom Colors, Excellent Resolution, Jigs & Fixtures, Fit & Function

Note: ASTM is the testing standard.

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ABS-M30	Rigid & Tough	FDM	ABS	White, Black, Grey, Red, Blue	28-32	2-7%	1760-2060	128	96C / 204F	UL 94 HB	NA	Production, Fixtures, Testing, Fit & Function
PC	Rigid & Tough	FDM	PC	White	42-57	2.5-4.8%	1800-2006	28-73	138C / 280F	UL 94 HB	NA	Production, Fixtures, Testing, Fit & Function
PC-ISO	Rigid & Tough	FDM	PC	White	57	4%	2100	86	133C / 271F	UL 94 HB	Yes	Medical Device Production Parts, Testing, Fit & Function
Ultem 9085	Rigid & High Heat	FDM	Ultem	Tan or Black	42-69	2.2-5.8%	2050-2300	48-120	153C / 307F	UL 94 VO	NA	Aero/Auto/Military Production, Testing, FST Rated
PA 12	Tough & Durable	HP Multi Jet Fusion	Nylon	Black	48	20%	1700	NA	175C / 347F	NA	NA	Production, Fit & Function, Testing, Chemical Resistant
Digital ABS	Accurate & Tough	Polyjet	ABS	White or Green	55-60	25-40%	1700-2200	90-115	68C / 154F	NA	NA	Fit & Function, Rapid Tools, Accurate
Tango (Multiple)	20A-90A Elastic	Polyjet	TPU	Black	1-5	45-220%	NA	NA	NA	NA	NA	Overmold Prints onto Rigid, Prototypes, Fit Checks, Marketing
Vero (Multiple)	Multi-Color Prototypes	Polyjet	ABS	Clear & Opaque All Colors	50-65	10-25%	1900-3200	20-30	45C / 113F	NA	NA	Realistic Multi-Color Prototypes for Marketing and Medical Models

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Accura ABS White, SL 7810	Accurate & Rigid	SLA	ABS	Clear Amber	46-48	8-14%	2040-2120	24-47	51C / 124F	NA	NA	Fit & Function, Marketing, Master Patterns
Accura ClearVue Free, SL 7870	High Clarity	SLA	PC	Clear	38-42	10-22%	1940-2250	23-51	48C / 118F	NA	Yes	Clear Prototypes, QuickCast, Moisture Resistance, Marketing
Accura SL 5530	High Heat	SLA	Glass Filled Nylon	Amber	57-63	2.7-4.4%	2972-3392	21	250C / 482F (w/ post cure)	NA	NA	High Heat Prototypes, Water & Solvent Resistant, Rapid Tools
Accura SL 7545	Tough & Durable	SLA	PP	Clear Amber	35-40	12-21%	1390-1560	28-39	50C / 122F	NA	NA	Fit & Function, Marketing, Durable SLA
Accura Xtreme	Accurate & Durable	SLA	ABS	Grey	38-44	14-22%	1520-2070	35-52	62C / 144F	NA	NA	Fit & Function, Marketing, Master Patterns
EvoLve 128	Accurate & Tough	SLA	ABS	White	56.8	11%	2654	39	52C / 126F	NA	NA	Fit & Function, Marketing, Durable SLA
DuraForm GF	Rigid & Durable	SLS	Glass Filled Nylon	White	26	1.40%	3106	41	179C / 354F	UL 94 HB	NA	Production, Fit & Function, Testing, Heat Resistance
DuraForm PA	Tough & Durable	SLS	Nylon/PP	White	43	14%	1387	32	180C / 356F	UL 94 HB	Yes	Production, Fit & Function, Testing, Chemical Resistant

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