

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.