



Graphite Additive Manufacturing

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MATERIALS & FINISHES

MATERIALS	Colour	Max. Length (mm)	Temp Resistance (°C)	Density g/cm ³	Tensile Modulus Mpa	Tensile Strength Mpa	Elongation Break %
○ Clear ABS-like SLA	Clear	800	50	1.1	2800	48	7
○ White ABS-like SLA	White	800	50	1.2	2300	40	12
● Ceramic SLA	White	800	200	1.7	9500	65	1.5
● Carbon SLS	Black	400	170	1.1	7100	76	4
● Graphite SLS NEW	Black	400	170	1.1	4240 [†]	58 [†]	6 [†]
● PP-like SLS*	Black	400	170	1	1500	48	47

All figures shown are current as of October 2015

[†]Provisional Data

AVAILABLE FINISHES	Basic £	Cosmetic £	Sanded ££	Painted ££	Clear Lacquered ££	Clear Polished £££	Sealed ££	Metal Plated £££
○ Clear ABS-like SLA	YES	YES	YES	YES	YES	YES	-	-
○ White ABS-like SLA	YES	YES	YES	YES	-	-	-	-
● Ceramic SLA	YES	YES	YES	YES	-	-	-	YES
● Carbon SLS	-	YES	YES	-	-	-	YES	-
● Graphite SLS NEW	-	YES	YES	-	-	-	YES	-
● PP-like SLS*	-	YES	YES	-	-	-	YES	-

* Available on special order only

Ref: GMF012

For more information please contact: sales@graphite-am.co.uk 01296 482673

MATERIALS

- Clear ABS-like SLA
A general purpose plastic with good elongation to break, water resistance. Typical applications include: Flow analysis, Master patterns, Concept models, Quickcast patterns, Lenses.
- White ABS-like SLA
An ABS-like plastic with excellent impact strength & durability. Typical applications include: Snap fits, Consumer/Sporting goods, Automotive panels.
- Ceramic SLA
Low shrinkage, high accuracy, stable and temperature resistant, this material can also give a very smooth surface finish. Typical applications include: Rapid tooling, Jigs, Wind tunnel testing, Master patterns for vacuum casting, Parts that will be metal plated.
- Carbon SLS
A carbon fibre filled plastic, which is ideal to produce final components in demanding applications. This material is also conductive. Typical applications include: Ducts, Wings, Gurneys, Covers, Brackets, Brake Caps, Cases, UAVs.
- Graphite SLS
A graphite powder filled plastic, which is ideal to produce final components in less demanding applications, where surface finish and colour are important. Typical applications include: Functional concept models, Covers, Brackets, Cases.
- PP-like SLS*
Polypropylene-like, tough and flexible material – ideal for snap-fit and living hinges. Typical applications include: Ducts, UAVs, Automotive housings, enclosures & connectors, Sports goods.

FINISHING OPTIONS

BASIC FINISH – Parts are washed & cleaned and any support material is removed. Build layer lines will still be visible.

COSMETIC FINISH – As above, plus the parts are bead-blasted to give a more uniform appearance and mask any build layer lines.

SANDED FINISH – Parts are sanded smooth by hand to remove build layer lines where required.

PAINTED – As above, plus parts can then be painted to client's requirements.

CLEAR LACQUERED – Following an initial sanding, clear parts are spray lacquered to achieve a clear finish.

CLEAR POLISHED – Where optical clarity is required on clear materials, parts can be further sanded and then polished.

SEALED – For certain applications and materials, we can seal parts to make them water, chemical or solvent resistant and to also improve the surface finish.

METAL PLATED – We can prepare components and then add a thin coating of metal to the surface, either Gold, Silver or Nickel. This greatly adds surface harness and stiffness, whilst also giving the appearance of a solid metal part.

MACHINE DIMENSIONS

SLA – 500mm x 500mm x 590mm

SLS – 330mm x 280mm x 370mm

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