

Material Comparison Table



Stereolithography (SLA)

Stereolithography builds a part layer-by-layer using UV sensitive resin and a high-power laser.

250x250x250mm; 350x350x350mm; 450x450x400mm; 800x800x550mm

****If the material you require isn't listed, please contact our sales team.**

Material	Accura Xtreme Plastic	Accura Clearvue Plastic	Accura 25	Somos [®] Evolve 128	Somos [®] PerFORM	
Description	Tough, High-Performance	High-Clarity	Durable Polypropylene-Like	High-Detail, ABS-Like	Fast Processing, High Resolution Ceramic	
	Replaces CNC machined ABS. Goog for form, fit & function prototypes as well as durable assemblies.	Great for headlamps, bottles & transparent assemblies. Great moisture resistance. Capable of meeting UPS Class VI.	Ideal for functional components including automotive styling parts.	A high-strength & durable SLA material. Suitable for aerospace, automotive, medical, consumer products & more.	A stiff, strong and high-temperature resistant material. Ideal for tooling, automotive housings & electrical casings.	
Available Colours	Grey + Painted or dyed in any colour	Transparent	White + Painted or dyed in any colour	White + Painted or dyed in any colour	Off-White + Painted or dyed in any colour	
Properties	Rigid	X	X	X	X	
	High Temp.				X	
	Low Temp.	X	X	X	X	
	Shore Hardness	86D	84D	80 D	82 D	93 - 94 D
	Tensile Strength	38-44 MPa	41 - 46 MPa	38 MPa	56.8 MPa	68 - 80 MPa
	Tensile Modulus	1,790 - 1980 MPa	2,030 - 2,220 MPa	1,590 - 1,660 MPa	2,964 MPa	9,800 - 10,500 MPa
	Flexural Strength	52-71 MPa	53 - 67 MPa	55 - 58 MPa	74 MPa	120 - 146 MPa
	Flexural Modulus	1,520 - 2070 MPa	1,560 - 2,040 MPa	1,380 - 1,660 MPa	2,654 MPa	9,030 - 10,000 MPa
	Heat Deflection Temp.	54 - 62° C	50 - 51° C	51 - 63° C	50 - 52° C	132 - 268° C
	Elongation Break	14 - 22%	4 - 7%	13 - 20%	11%	1.1 - 2.1%
Available Finishes	Textured, matt, satin or gloss surface finish, as well as rubber overmoulding finishes.					

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Material	Accura HPC	Accura PIV	Ultra RC70	Somos [®] Waterclear Ultra	
Description	High-Rigidity Nanocomposite	High-Contrast	High-Performance	Optically Clear	
	High-speed, suitable for automotive & aerospace wind tunnel models as well as jigs & fixtures.	Great for PIV testing as well as electrical enclosures.	Ideal for functional verifications or small batch terminal applications.	Great for automotive lenses, bottles and optically clear parts. Superior moisture resistance.	
Available Colours	White + Painted or dyed in any colour	Purple	White + Painted or dyed in any colour	Transparent	
Properties	Rigid	x	x	x	
	High Temp.				
	Low Temp.	x	x	x	
	Shore Hardness	80D	91D	85 D	87 D
	Tensile Strength	66 - 89 MPa	72 MPa	58 MPa	56 MPa
	Tensile Modulus	9,000 – 9,700 MPa	9,300 MPa	1,950 MPa	2,880 MPa
	Flexural Strength	137 - 157 MPa	142 MPa	72 MPa	84 MPa
	Flexural Modulus	8,700 – 10,200 MPa	9,900 MPa	2,526 MPa	2,490 MPa
	Heat Deflection Temp.	62 - 73° C	59 - 72° C	59 - 70° C	43 - 47° C
	Elongation Break	0.8 – 1.9%	1.2%	14%	8%
Available Finishes	Textured, matt, satin or gloss surface finish, as well as rubber overmoulding finishes.				



Accura Xtreme



A durable, ABS-like plastic that is well suited for form, fit and function testing, on-demand parts and rapid prototyping master parts.

Measurement	Value
Shore Hardness	86D
Tensile Strength	38 - 44 MPa
Tensile Modulus	1,790 - 1,980 MPa
Flexural Strength	52 - 71 MPa
Flexural Modulus	1,520 - 2,070 MPa
Heat Deflection Temp	60° C
Elongation Break	14 - 22%

Actual values may vary depending on build conditions.
Our technical team can advise via info@ame-3d.co.uk.





Accura ClearVue



A transparent, polycarbonate-like material. It is well suited for automotive lenses, medical models, and visualisation models where transparency is key.

Measurement	Value
Shore Hardness	84D
Tensile Strength	41 - 46 MPa
Tensile Modulus	2,030 - 2,220 MPa
Flexural Strength	53 - 67 MPa
Flexural Modulus	1,560 - 2,040 MPa
Heat Deflection Temp	50 - 51° C
Elongation Break	4 - 7%

Actual values may vary depending on build conditions. Our technical team can advise via info@ame-3d.co.uk.





Accura 25



A durable, polypropylene-like SLA material. Ideal for functional components including automotive styling parts.

Measurement	Value
Shore Hardness	80D
Tensile Strength	38 MPa
Tensile Modulus	1,590 - 1,660 MPa
Flexural Strength	55 - 58 MPa
Flexural Modulus	1,380 - 1,660 MPa
Heat Deflection Temp	51 - 63° C
Elongation Break	13 - 20%

Actual values may vary depending on build conditions.
Our technical team can advise via info@ame-3d.co.uk.





Somos® EvoLve 128



A high-strength, ABS-like plastic. Ideal for low to medium part runs, large automotive rapid prototypes and medical devices.

Measurement	Value
Shore Hardness	82D
Tensile Strength	56.8 MPa
Tensile Modulus	2,964 MPa
Flexural Strength	74 MPa
Flexural Modulus	2,654 MPa
Heat Deflection Temp	50 - 52° C
Elongation Break	11%

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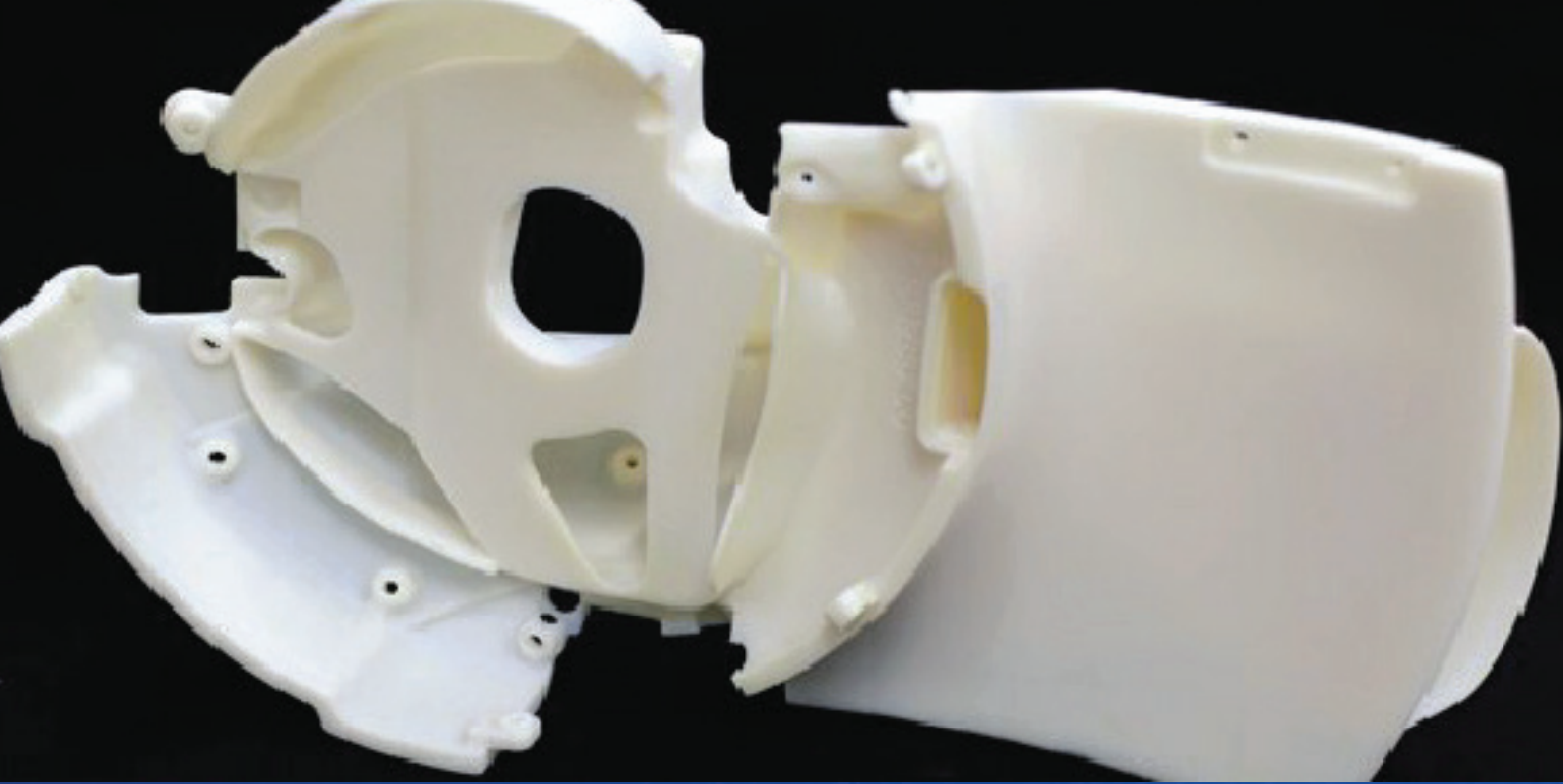


SLA
Stereolithography
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ame-3d.co.uk
Info@ame-3d.co.uk
01909 550 999



AME-3D
Realising in Three Dimensions



Somos® PerFORM



A ceramic-like material. With the lowest viscosity of any composite SLA material, it's ideal for creating strong, stiff parts with excellent high heat resistance.

Measurement	Value
Shore Hardness	93 - 94D
Tensile Strength	68 - 80 MPa
Tensile Modulus	9,800 - 10,500 MPa
Flexural Strength	120 - 146 MPa
Flexural Modulus	9,030 - 10,000 MPa
Heat Deflection Temp	132 - 268° C
Elongation Break	1.1 - 2.1%

Actual values may vary depending on build conditions.
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Accura HPC



A high speed, high rigidity nanocomposite . Suitable for automotive & aerospace wind tunnel models as well as jigs, fixtures & tooling applications.

Measurement	Value
Shore Hardness	80D
Tensile Strength	66 - 89 MPa
Tensile Modulus	9,000 - 9,700 MPa
Flexural Strength	137 - 157 MPa
Flexural Modulus	8,700 - 10,200 MPa
Heat Deflection Temp	62 - 73° C
Elongation Break	0.8 - 1.9%

Actual values may vary depending on build conditions.
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Accura PIV



A high rigidity, high contrast material for PIV testing. Suitable for electrical enclosures, jigs, fixtures & tooling. Also ideal for heat resistant applications.

Measurement	Value
Shore Hardness	91D
Tensile Strength	72 MPa
Tensile Modulus	9,300 MPa
Flexural Strength	142 MPa
Flexural Modulus	9,900 MPa
Heat Deflection Temp	59 - 72° C
Elongation Break	1.2%

Actual values may vary depending on build conditions.
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AME Ultra RC70



A high-performance SLA resin that is strong & precise. Ideal for functional verifications or small batch terminal application scenarios.

Measurement	Value
Shore Hardness	85D
Tensile Strength	58 MPa
Tensile Modulus	1,950 MPa
Flexural Strength	72 MPa
Flexural Modulus	2,526 MPa
Heat Deflection Temp	59 - 70° C
Elongation Break	14%

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Somos® Waterclear Ultra



A SLA material with extraordinary optical clarity and high moisture resistance. It is well suited for automotive lenses, bottle and functional models.

Measurement	Value
Shore Hardness	87D
Tensile Strength	56 MPa
Tensile Modulus	2,880 MPa
Flexural Strength	84 MPa
Flexural Modulus	2,480 MPa
Heat Deflection Temp	43 - 47° C
Elongation Break	7.5%

Actual values may vary depending on build conditions.
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