

Material Comparison Table



Selective Laser Sintering (SLS)

Selective Laser Sintering (SLS) builds a part layer-by-layer via a laser fusing nylon-based powder together.
330x280x400mm

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

Material		AME Nylon PA 650 - Black	AME Nylon PA 650 - White	AME Nylon GF 615 GS	AME PA 2210 FR	AME PA 2241 FR
Description		Great for prototypes & end-use products requiring durability.	Great for prototypes & end-use products requiring durability.	50% glass filled nylon. Ideal for automotive engine components or parts with complex geometries.	Blue Card certified. Ideal for manufacturing flame-resistant parts.	Blue Card certified. Ideal for manufacturing flame-resistant parts. FAR 25.853 compliant.
Available Colours		Black	White + Painted or dyed in any colour	Light Sand Tone + Painted or dyed in any colour	White + Painting/dying not advised unless flame-retardant materials used.	White + Painting/dying not advised unless flame-retardant materials used.
Properties	Rigid	X	X	X	X	X
	High Temp.	X	X	X		
	Flame Retardant				X	X
	Shore Hardness	73D	73D	77 D	75 D	75 D
	Tensile Strength	48 MPa	48 MPa	38 MPa	46 MPa	49 MPa
	Tensile Modulus	1,700 MPa	1,700 MPa	5,910 MPa	2,500 Mpa	1,900 Mpa
	Flexural Strength	48 MPa	48 MPa	37 MPa	65 Mpa	59 MPa
	Flexural Modulus	1,500 MPa	1,500 MPa	3,300 Mpa	2,300 Mpa	1,390 MPa
	Heat Deflection Temp.	95 - 180° C	95 - 180° C	137 - 179° C	84° C	84° C
Elongation Break	24%	24%	2%	4%	15%	
Chemical Resistance		-	-	Alkalines, hydrocarbons, fuels, solvents.	Chemical flame retardant.	Chemical flame retardant.
Available Finishes		Textured, matt, satin or gloss surface finish, as well as rubber overmoulding finishes.				



AME Nylon PA 650



A versatile and highly robust material, which is chemical resistant and sustainable as 80% of post production powder is recyclable.

Measurement	Value
Shore Hardness	73D
Tensile Strength	48 MPa
Tensile Modulus	1,700 MPa
Flexural Strength	48 MPa
Flexural Modulus	1,500 MPa
Heat Deflection Temp	95 - 180° C
Elongation Break	24%

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

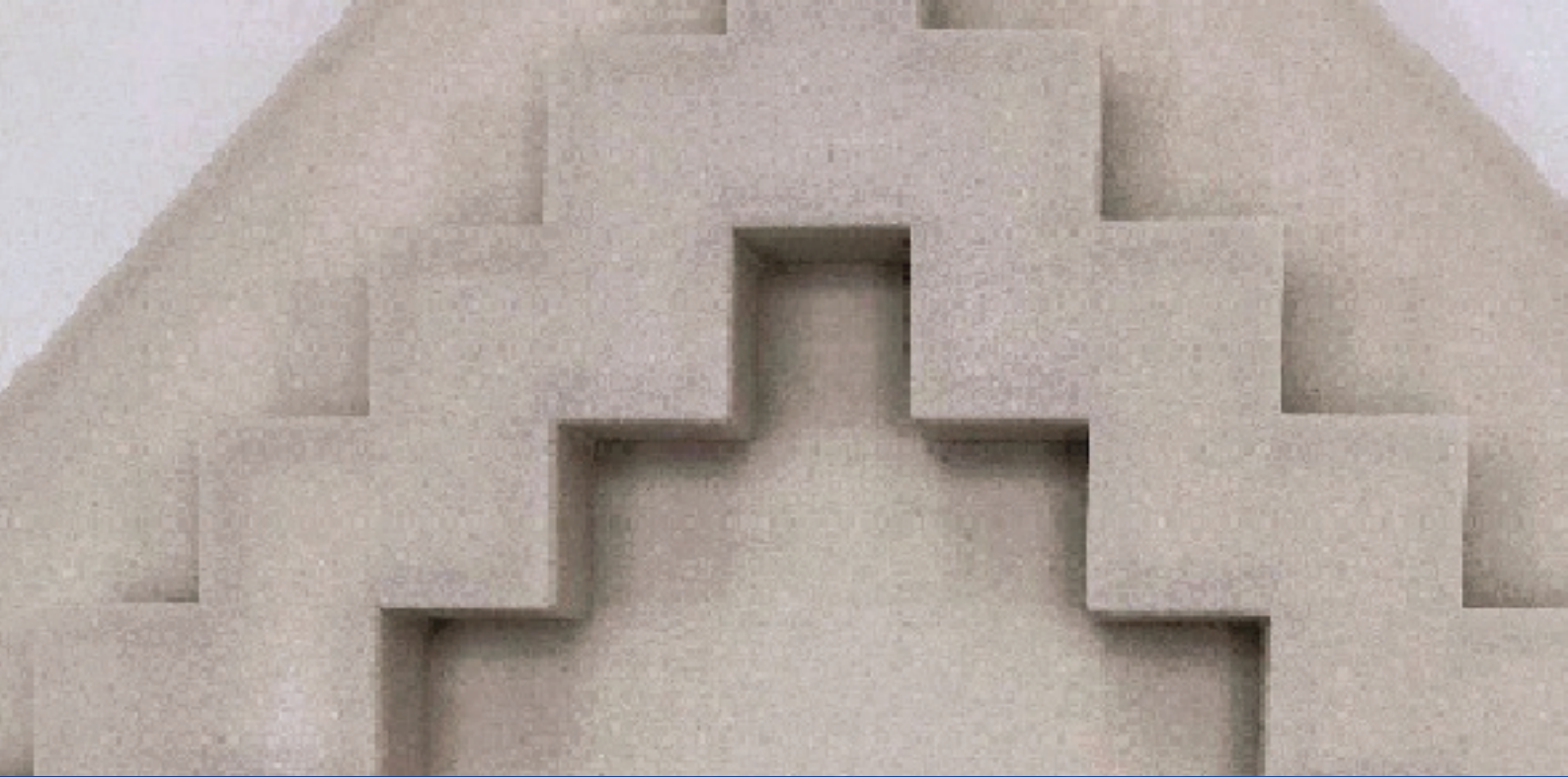


SLS
Selective Laser Sintering
Material Datasheet

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



AME-3D
Realising in Three Dimensions



AME Nylon GF 615



50% Glass filled nylon. Ideal for automotive engine components or parts with complex geometries.

Measurement	Value
Shore Hardness	77D
Tensile Strength	38 MPa
Tensile Modulus	5,910 MPa
Flexural Strength	37 MPa
Flexural Modulus	3,300 MPa
Heat Deflection Temp	137 - 179° C
Elongation Break	2%

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AME PA 2210 FR



A high-performance, blue card certified SLS material with a halogen-free flame retardant . Ideal for flame resistant parts that have high mechanical properties.

Measurement	Value
Shore Hardness	75D
Tensile Strength	46 MPa
Tensile Modulus	2,500 MPa
Flexural Strength	65 MPa
Flexural Modulus	2,300 MPa
Heat Deflection Temp	84° C
Elongation Break	4%

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