



SELECTIVE LASER SINTERING (SLS) TECHNICAL PACK

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SELECTIVE LASER SINTERING



TECHNICAL SPECIFICATION

MACHINES

VANGUARD

XYZ (mm)

330 x 280 x 400

Layer Thickness

0.1mm

Clearances

Connections Min 0.2mm | Functional Parts 0.5 - 0.6mm

Tolerances

± 0.3% (with a lower limit of ± 0.3mm)

Wall Thickness

0.8mm - 1mm
(varies with material choices)

Engraving

Minimum depth of 1mm
(text must have a min. font size of 2mm)

Embossed Details

Minimum height of 1mm

Holes / Escape Holes

>1.5mm diameter / Min. 3.5mm diameter

Materials

Nylon PA 650 | Nylon GF 615 GS | PA 2210 FR
| PA 2241 FR | WINDFORM XT





MATERIAL	NYLON PA 650	NYLON GF 615 GS	PA 2210 FR	PA 2241 FR	WINDFORM XT
Description	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.	Excellent mechanical performances, including high stiffness matched to low density & remarkable lightness.
Available Colours	White & Black	Light Sand Tone	White	White	Black
Rigid	x	x	x	x	x
High Temp.	x	x			x
Flame Retardant			x	x	
Shore Hardness	73D	77D	75D	75D	79D
Tensile Strength	48 MPa	38 MPa	46 MPa	49 MPa	83 - 84 MPa
Tensile Modulus	1,700 MPa	5,910 MPa	2,500 MPa	1,900 MPa	8928, 20 MPa
Flexural Strength	48 MPa	37 MPa	65 MPa	59 MPa	133, 00 MPa
Flexural Modulus	1,500 MPa	3,300 MPa	2,300 MPa	1,390 MPa	7338, 20 MPa
Heat Deflection Temp.	95 - 180° C	137 - 179° C	84° C	84° C	173, 40° C
Elongation Break	24%	2%	4%	15%	3, 80%





AME Nylon PA 650



Selective Laser Sintering (SLS)
Material Datasheet



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.

AME Nylon GF 615 GS



Selective Laser Sintering (SLS)
Material Datasheet



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%

Actual values may vary depending on build conditions. Our technical team can advise.

AME PA 2210 FR



Selective Laser Sintering (SLS)
Material Datasheet



A high-performance, blue card certified SLS material
with a halogen-free flame retardant.

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%

Actual values may vary depending on build conditions. Our
technical team can advise.

AME PA 2241 FR



Selective Laser Sintering (SLS)
Material Datasheet



Blue card certified. Ideal for manufacturing flame-resistant parts. FAR 25.853 compliant.

Measurement	Value
Shore Hardness	75D
Tensile Strength	49 MPa
Tensile Modulus	1,900 MPa
Flexural Strength	59 MPa
Flexural Modulus	1,390 MPa
Heat Deflection Temp.	84° C
Elongation Break	15%

Actual values may vary depending on build conditions. Our technical team can advise.

WINDFORM XT



Selective Laser Sintering (SLS)
Material Datasheet



Excellent mechanical performances, including high stiffness matched to low density & remarkable lightness.

Measurement	Value
Shore Hardness	79D
Tensile Strength	83 - 84 MPa
Tensile Modulus	8928, 20 MPa
Flexural Strength	133, 00 MPa
Flexural Modulus	7338, 20 MPa
Heat Deflection Temp.	173, 40° C
Elongation Break	3, 80%

Actual values may vary depending on build conditions. Our technical team can advise.