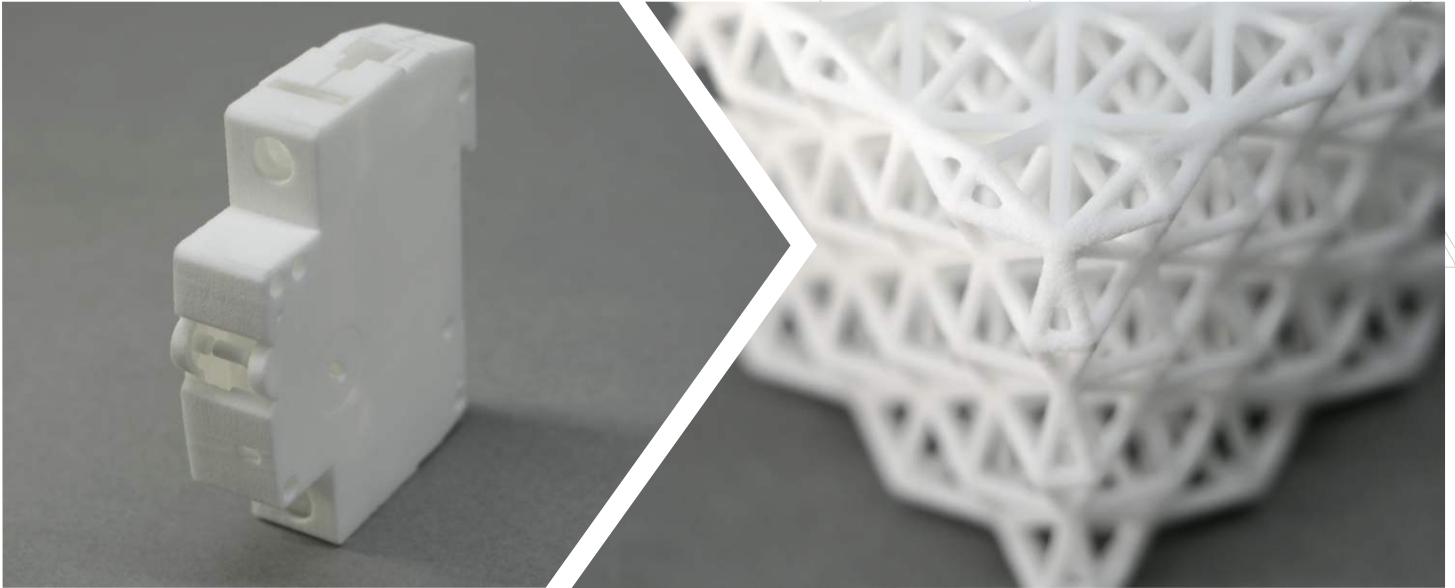


Nylon



Generic Data :

Technical Name	PA 2200
Process	Selective Laser Sintering (SLS)
Layer Thickness	100 μm
Accuracy	(+/-) 200 μm
Maximum Build Size	340x340x600 mm

Nylon or PA2200 is a polyamide 12 compound. Due to excellent mechanical properties and good elongation at break, the material is often used in applications that require fully functional parts of highest quality.

Nylon is white in color and comes with an inherent grainy surface finish. Since Nylon parts are fabricated using Selective Laser Sintering Technology, there is no support structure generation, making it suitable for parts which are complex and which have intricate geometries and moving part assemblies.

Characteristics

- + Strong and flexible
- + Good mechanical and chemical properties
- + No support structures
- + FDA approved
- Inherent grainy surface finish
- Natural white color may dull after repeated use

Applications

- ✓ Fully functional parts
- ✓ Best suited for snap-fit assemblies and moving parts
- ✓ Automotive, medical, packaging industries
- ✓ Complex and intricate geometries

Material Properties	Value	Unit	Standard Test Method
Density (sintered powder)	0.9	g/cm ³	EOS Method
Powder Color (Natural)	White	-	-
Average Grain size	56	μm	ISO 13320-11
	2.2	mil	Laser diffraction
Mechanical Properties			
Tensile Modulus			
X-direction	1700	MPa	ISO 527-1/-2
Y-direction			
Z-direction			
Ultimate Tensile Strength			
X-direction	50	MPa	ISO 527-1/-2
Y-direction			
Z-direction			
Elongation at Break			
X-direction	20	%	ISO 527-1/-2
Y-direction			
Z-direction			
Flexural Modulus (23°C, X-direction)	1500	MPa	ISO 178
Charpy impact strength (+23°C, X-direction)	53	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C, X-direction)	4.8	kJ/m ²	ISO 179/1eA
Izod Impact notched (23°C)	4.4	kJ/m ²	ISO 180/1A
Shore Hardness (15s)	75	Scale D	ISO 7619-1
Thermal Properties			
Melting Point (20°C/min)	176	°C	ISO 11357-1/-3
Vicat Softening Temperature (50°C/h 50N)	163	°C	ISO 306

Certification

FDA approval acc. To USP Biological Test (classification VI/121°C)