

PA 2200 Top Quality 1.0

PA12

EOS GmbH - Electro Optical Systems

Mechanical properties	Value	Unit	Test Standard
Izod notched impact strength (+23°C)	4.4	kJ/m ¹	ISO 180/1A
Shore D hardness	75	-	ISO 7619-1

3D Data	Value	Unit	Test Standard
The properties of parts manufactured using additive manufacturing technology (e.g. laser sintering, stereolithography, Fused Deposition Modelling, 3D printing) are, due to their layer-by-layer production, to some extent direction dependent. This has to be considered when designing the part and defining the build orientation.			
Tensile Modulus			ISO 527
X Direction	1800	MPa	
Y Direction	1800	MPa	
Z Direction	1750	MPa	
Tensile Strength			ISO 527
X Direction	52	MPa	
Y Direction	52	MPa	
Z Direction	52	MPa	
Strain at break			ISO 527
X Direction	20	%	
Y Direction	20	%	
Z Direction	7	%	
Charpy impact strength (+23°C, X Direction)	53	kJ/m ¹	ISO 179/1eU
Charpy notched impact strength (+23°C, X Direction)	4.8	kJ/m ¹	ISO 179/1eA
Flexural Modulus (23°C, X Direction)	1500	MPa	ISO 178

Thermal properties	Value	Unit	Test Standard
Melting temperature (20°C/min)	176	°C	ISO 11357-1/-3
Vicat softening temperature (50°C/h 50N)	163	°C	ISO 306

Other properties	Value	Unit	Test Standard
Density (lasersintered)	930	kg/m ³	EOS Method
Powder colour (ac. to safety data sheet)	White	-	-

Characteristics

Processing

Laser Sintering, Rapid Prototyping

Delivery form

Powder

Chemical Resistance

General Chemical Resistance

Certifications

FDA approval acc. to USP Biological test (classification VI/121°C)