



PA 2200 Balance 1.0
PA12

EOS GmbH - Electro Optical Systems

Mechanical properties	Value	Unit	Test Standard
Izod notched impact strength (+23°C)	4.4	kJ/m ²	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	1650	MPa	
Y Direction	1650	MPa	
Z Direction	1650	MPa	
Tensile Strength			ISO 527
X Direction	48	MPa	
Y Direction	48	MPa	
Z Direction	42	MPa	
Strain at break			ISO 527
X Direction	18	%	
Y Direction	18	%	
Z Direction	4	%	
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
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
Burning behavior			UL 94
Test passed, HB	0.5	mm	
Test passed, HB	1.6	mm	
Test passed, HB	3.2	mm	

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

Chemical Resistance

General Chemical Resistance

Delivery form

Powder

Certifications

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