

## PA 3200 GF PA12-GB

## EOS GmbH - Electro Optical Systems

Mechanical properties	Value	Unit	Test Standard
Izod notched impact strength (+23°C)	4.2	kJ/m²	ISO 180/1A
Izod impact strength (+23°C)	21	kJ/m²	ISO 180/1U
Shore D hardness	80	-	ISO 7619-1
Ball indentation hardness	98	MPa	ISO 2039-1

3D Data Value Ur 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 t	he part and defining the build orientation.
Tensile Modulus	ISO 527
X Direction 3200 MF	Pa
Y Direction 3200 MF	Pa
Z Direction 2500 MF	Pa
Tensile Strength	ISO 527
X Direction 51 MF	Pa
Y Direction 51 MF	Pa
Z Direction 47 MF	Pa .
Strain at break	ISO 527
X Direction 9 %	
Y Direction 9 %	
Z Direction 5.5 %	
Charpy impact strength (+23°C, X Direction) 35 kJ,	/m <sup>2</sup> ISO 179/1eU
Charpy notched impact strength (+23°C, X Direction) <b>5.4</b> kJ	/m <sup>2</sup> ISO 179/1eA
Flexural Modulus (23°C, X Direction) 2900 MF	Pa ISO 178
Flexural Strength (X Direction) 73 MF	Pa ISO 178
Temp. of deflection under load	ISO 75-1/-2
1.80 MPa, X Direction <b>96</b> °C	
0.45 MPa, X Direction <b>157</b> °C	
Thermal properties Value Ur	nit Test Standard
Melting temperature (20°C/min) 176 °C	
Temp. of deflection under load	ISO 75-1/-2
1.80 MPa <b>96</b> °C	•
0.45 MPa <b>157</b> °C	
Vicat softening temperature	ISO 306
50°C/h 10N 179 °C	
50°C/h 50N <b>166</b> °C	
Other properties Value Ur	nit Test Standard
	/m³ EOS Method
Powder colour (ac. to safety data sheet)  White	-

## Characteristics

Laser Sintering, Rapid Prototyping

Tribologic Grade

**Delivery form** 

Powder

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