

# PA 2200 Balance 1.0

PA12

**Product Texts:** 120 µm layer thickness

## Mechanical Properties

Property	Test Standard	Value
Izod Impact Notched (23°C)	ISO 180/1A	4.4 kJ/m <sup>2</sup>
Shore D Hardness (15s)	ISO 868	75

## 3D Data

The properties of parts manufactured using additive manufacturing technology (e.g. laser sintering, stereolithography, Fused Deposition Modeling, 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.

Property	Test Standard	Value
Tensile Modulus, X Direction	ISO 527-1/-2	1650 MPa
Tensile Modulus, Y Direction	ISO 527-1/-2	1650 MPa
Tensile Modulus, Z Direction	ISO 527-1/-2	1650 MPa
Tensile Strength, X Direction	ISO 527-1/-2	48 MPa
Tensile Strength, Y Direction	ISO 527-1/-2	48 MPa
Tensile Strength, Z Direction	ISO 527-1/-2	42 MPa
Strain at Break, X Direction	ISO 527-1/-2	18%

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## 3D Data (continued)

Property	Test Standard	Value
Strain at Break, Y Direction	ISO 527-1/-2	18%
Strain at Break, Z Direction	ISO 527-1/-2	4%
Charpy Impact Strength (+23°C, X Direction)	ISO 179/1eU	53 kJ/m <sup>2</sup>
Charpy Notched Impact Strength (+23°C, X Direction)	ISO 179/1eA	4.8 kJ/m <sup>2</sup>
Flexural Modulus (23°C, X Direction)	ISO 178	1500 MPa

## Thermal Properties

Property	Test Standard	Value
Melting Temperature (20°C/min)	ISO 11357-1/-3	176°C
Vicat Softening Temperature (50°C/h 50N)	ISO 306	163°C

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## Other Properties

Property	Test Standard	Value
Density (Lasersintered)	EOS Method	930 kg/m <sup>3</sup>
Powder Color (According to Safety Data Sheet)		White

*Data sheets provided by Xometry contain material sourced through trusted OEMs, material distributors, and databases. Please visit [MaterialDataCenter.com](https://MaterialDataCenter.com) for further information on this material.*