

# Nylon 12 PA 2201

Functional parts with a high end finish right out of the part cake which easily withstand high mechanical and thermal loads. This material is in compliance with FDA, 21 CFR, §177.1500 9(b) except for alcoholic foodstuff and bio compatible according to EN ISO 10993-1 and USP/level VI/121 °C

MECHANICAL PROPERTIES	TEST STANDARD	VALUE
Tensile Modulus	ISO 527-1/-2	1700 MPa / 246.6 kpsi
Tensile Strength	ISO 527-1/-2	48 MPa / 7 kpsi
Strain at break	ISO 527-1/-2	15%
Charpy impact strength (+23°C)	ISO 179/1eU	53 kJ/m <sup>2</sup>
Charpy notched impact strength (+23°C)	ISO 179/1eA	4.8 kJ/m <sup>2</sup>
Flexural Modulus (23°C)	ISO 178	1500 MPa / 217.6 kpsi
Flexural Strength	ISO 178	58 MPa / 8.4 kpsi
Izod Impact notched (23°C)	ISO 180/1A	4.4 kJ/m <sup>2</sup>
Shore D hardness (15s)	ISO 868	75
Ball indentation hardness	ISO 2039-1	78 MPa / 11.3 kpsi

THERMAL PROPERTIES	TEST STANDARD	VALUE
Melting temperature (10°C/min)	ISO 11357-1/-3	176°C
Vicat softening temperature (50°C/h 50N)	ISO 306	163 °C

OTHER PROPERTIES	TEST STANDARD	VALUE
Density (lasersintered)		0.93 grams/CC

Actual part properties may vary slightly from those listed above based on processing parameters, operating conditions, and material usage. Forecast3D makes no warranties of materials for any particular application, nor does it make a warranty of any type, expressed or implied, including, but not limited to, the warranties of merchantability for a particular purpose.

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