

## POLYMER SOLUTIONS

# PA 2201

## Material Data Sheet

**PA 2201**

## Product Description

PA 2201, based on polyamide 12, offers a wide range of applications thanks to its very balanced property profile. Components made from this pigment free polyamide 12 powder are whitish, slightly translucent. With properties otherwise comparable to PA 2200 – strength, rigidity and good chemical resistance – parts made from PA 2201 can be approved for use in the medical industry.

### MAIN CHARACTERISTICS

- Balanced property profile
- Multipurpose material

### TYPICAL APPLICATIONS

- Surgery cutting guides and bone models for the medical industry
- Functional parts for prototyping, that include hinges or threads

MECHANICAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD
<b>Tensile Modulus</b>			ISO 527-1/-2
X Orientation	1700 / -	MPa	
Y Orientation	1700 / -	MPa	
<b>Tensile Strength</b>			ISO 527-1/-2
X Orientation	48 / -	MPa	
Y Orientation	48 / -	MPa	
<b>Nominal Strain at Break</b>			ISO 527-1/-2
X Orientation	15 / -	%	
<b>Flexural Modulus</b>			ISO 178
X Orientation	1500 / -	MPa	
<b>Flexural Strength</b>			ISO 178
X Orientation	58 / -	MPa	
<b>Charpy Impact Strength (+23°C)</b>			ISO 179/1eU
X Orientation	53 / -	kJ/m <sup>2</sup>	
<b>Charpy Notched Impact Strength (+23°C)</b>			ISO 179/1eA
X Orientation	4.4 / -	-	
<b>Izod Impact Strength (+23°C)</b>			ISO 180/1U
X Orientation	33 / -	kJ/m <sup>2</sup>	
<b>Izod Notched Impact Strength (+23°C)</b>			ISO 180/1A
X Orientation	4.4 / -	kJ/m <sup>2</sup>	
<b>Shore D Hardness</b>			ISO 7619-1
X Orientation	75 / -	-	
<b>Ball Indentation Hardness</b>			ISO 2039-1
X Orientation	78 / -	MPa	
THERMAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD
<b>Melting Temperature</b>	176	°C	ISO 11357-1/-3
<b>Vicat Softening Temperature</b>			ISO 306/A50
X Orientation	181	°C	
<b>Vicat Softening Temperature</b>			ISO 306/B50
X Orientation	163	°C	
OTHER PROPERTIES	VALUE	UNIT	TEST STANDARD
<b>Density</b>	0.93	g/cm <sup>3</sup>	EOS Method
<b>Powder Color</b>	natural	-	-
<b>Components Color</b>	natural	-	-

## HEADQUARTERS

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