

## 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
<b>X Orientation</b>	1700 / -	MPa	
<b>Y Orientation</b>	1700 / -	MPa	
<b>Tensile Strength</b>			ISO 527-1/-2
<b>X Orientation</b>	48 / -	MPa	
<b>Y Orientation</b>	48 / -	MPa	
<b>Nominal Strain at Break</b>			ISO 527-1/-2
<b>X Orientation</b>	15 / -	%	
<b>Flexural Modulus</b>			ISO 178
<b>X Orientation</b>	1500 / -	MPa	
<b>Flexural Strength</b>			ISO 178
<b>X Orientation</b>	58 / -	MPa	
<b>Charpy Impact Strength (+23°C)</b>			ISO 179/1eU
<b>X Orientation</b>	53 / -	kJ/m <sup>2</sup>	
<b>Charpy Notched Impact Strength (+23°C)</b>			ISO 179/1eA
<b>X Orientation</b>	4.4 / -	-	
<b>Izod Impact Strength (+23°C)</b>			ISO 180/1U
<b>X Orientation</b>	33 / -	kJ/m <sup>2</sup>	
<b>Izod Notched Impact Strength (+23°C)</b>			ISO 180/1A
<b>X Orientation</b>	4.4 / -	kJ/m <sup>2</sup>	
<b>Shore D Hardness</b>			ISO 7619-1
<b>X Orientation</b>	75 / -	-	
<b>Ball Indentation Hardness</b>			ISO 2039-1
<b>X Orientation</b>	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
<b>X Orientation</b>	181	°C	
<b>Vicat Softening Temperature</b>			ISO 306/B50
<b>X Orientation</b>	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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