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
Tensile Modulus			ISO 527-1/-2
X Orientation	1700 / -	MPa	
Y Orientation	1700 / -	MPa	
Tensile Strength			ISO 527-1/-2
X Orientation	48 / -	MPa	
Y Orientation	48 / -	MPa	
Nominal Strain at Break			ISO 527-1/-2
X Orientation	15 / -	%	
Flexural Modulus			ISO 178
X Orientation	1500 / -	MPa	
Flexural Strength			ISO 178
X Orientation	58 / -	MPa	
Charpy Impact Strength (+23°C)			ISO 179/1eU
X Orientation	53 / -	kJ/m²	
Charpy Notched Impact Strength (+23°C)			ISO 179/1eA
X Orientation	4.4 / -	-	
Izod Impact Strength (+23°C)			ISO 180/1U
X Orientation	33 / -	kJ/m²	
Izod Notched Impact Strength (+23°C)			ISO 180/1A
X Orientation	4.4 / -	kJ/m²	
Shore D Hardness			ISO 7619-1
X Orientation	75 / -	-	
Ball Indentation Hardness			ISO 2039-1
X Orientation	78 / -	MPa	

THERMAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD
Melting Temperature	176	°C	ISO 11357-1/-3
Vicat Softening Temperature			ISO 306/A50
X Orientation	181	°C	
Vicat Softening Temperature			ISO 306/B50
X Orientation	163	°C	

OTHER PROPERTIES	VALUE	UNIT	TEST STANDARD
Density	0.93	g/cm³	EOS Method
Powder Color	natural	-	-
Components Color	natural	-	-

HEADQUARTERS

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Status as of 19.08.2024. Subject to technical modifications. EOS is certified according to ISO 9001.