EOS PA 2200 Speed 1.0

Polyamide 12

EOS GmbH

Message:

This whitish fine powder PA 2200 on the basis of polyamide 12 serves with its very well-balanced property profile a wide variety of applications.
Laser-sintered parts made from PA 2200 possess excellent material properties:
high strength and stiffness
good chemical resistance
excellent long-term constant behaviour
high selectivity and detail resolution
various finishing possibilities (e.g. metallisation, stove enamelling, vibratory grinding, tub colouring, bonding, powder coating, flocking)
bio compatible according to EN ISO 10993-1 and USP/level VI/121 °C
approved for food contact in compliance with the EU Plastics Directive 2002/72/EC (exception: high alcoholic foodstuff)
Typical applications of the material are fully functional plastic parts of highest quality. Due to the excellent mechanical properties the material is often used to substitute typical injection moulding plastics. The biocompatibility allows its use e.g. for prostheses, the high abrasion resistance allows e.g. the realisation of movable part connections.
150 µm layer thickness:
The Speed parameter set applies the classic 150 µm layer thickness which is popular and widespread on the market due to its allround qualities. This parameter set offers slightly higher surface quality than TopSpeed.

General Information			
Features	Biocompatible		
	Food Contact Acceptable		
	Good Abrasion Resistance		
	Good Chemical Resistance		
	High Stiffness		
	High Strength		
Uses	Engineering Parts		
	Medical/Healthcare Applications		
	Prosthetics		
	Prototyping		
Agency Ratings	EU 2002/72/EC		
	ISO 10993		
	USP Class VI		
Appearance	White		
Forms	Powder		
Processing Method	3D Printing, Laser Sintering/Melting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.930	g/cm³	Internal Method
Thickness - Layer	150.0	µm	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore D, 15 sec)	75		ISO 868

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- [1]	1600	MPa	ISO 527-2
-- [2]	1550	MPa	ISO 527-2
Tensile Stress			
-- [3]	42.0	MPa	ISO 527-2
-- [4]	48.0	MPa	ISO 527-2
Tensile Strain			
Break [5]	18	%	ISO 527-2
Break [6]	4.0	%	ISO 527-2
Flexural Modulus [7] (23°C)	1500	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [8] (23°C)	4.8	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength [9] (23°C)	53	kJ/m^2	ISO 179/1eU
Notched Izod Impact Strength (23°C)	4.4	kJ/m^2	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	163	°C	ISO 306/B50
Melting Temperature	176	°C	ISO 11357
NOTE			
1.	X Direction		
2.	Z Direction		
3.	Z Direction		
4.	Y Direction		
5.	X Direction		
6.	Z Direction		
7.	X Direction		
8.	X Direction		
9.	X Direction		

Recommended distributors for this material

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