

Product Texts

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.

100 µm layer thickness

Performance is the parameter set of choice for parts with high demands on mechanical properties and fracture behaviour, especially when the part is going to be subjected to multiaxial loading in all three directions. Performance parts are characterized by the highest degree of isotropic strength and rigidity. The choice of 100 µm layer thickness results in fine resolution and also very high surface quality and detail resolution.

More properties, especially anisotropic data of this material can be found at www.eos.info.

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	1700	MPa	ISO 527
Tensile Strength	50	MPa	ISO 527
Strain at break	20	%	ISO 527
Flexural modulus, 23°C	1500	MPa	ISO 178
Charpy impact strength, +23°C	53	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	4.8	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	4.4	kJ/m ²	ISO 180/1A
Shore D hardness	75	-	ISO 7619-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	176	°C	ISO 11357-1/-3
Vicat softening temperature, B	163	°C	ISO 306

Other properties	Value	Unit	Test Standard
Density	930	kg/m ³	ISO 1183

Characteristics**Processing**

Additive Manufacturing, Laser Sintering

Delivery form

Powder, White

Chemical Resistance

General Chemical Resistance

Certifications

US Pharmacopeia Class VI Approved

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa