

OCEANZ PA12

Datasheet for polyamide parts produced by Selective Laser Sintering



This whitish fine powder on the basis of polyamide 12 serves with its very well-balanced property profile a wide variety of applications. Laser-sintered parts made from Oceanz PA12 possess excellent material properties:

- high strength and stiffness
- good chemical resistance and excellent long-term constant behaviour
- biocompatible according to EN ISO 10993-1
- approved for food contact in compliance with EC1935/2004 (exception: 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 for various medical applications (e.g. surgical guides, prostheses) and food contact applications. Oceanz PA12 which is processed in our ISO9001 can be polished, coloured and coated. Oceanz PA12 is also available as medical grade (ISO13485) and food grade (ISO9001). Products processed in ISO13485 cannot be polished, coloured and coated.

Part properties	Value	Unit
Part colour	White	-
Part density	0.93	g/cm ³
Minimum wall thickness	0.7	mm
Layer thickness	0.1 – 0.12	mm
Max. product size	675 x 366 x 545	mm
Tensile modulus	1650	MPa
Tensile strength XY	48	MPa
Tensile strength Z	42	MPa
Strain at break XY	18	%
Strain at break Z	4	%
Shore hardness	75	Shore D
Melting temperature	185 - 189	°C

Please note that all mentioned mechanical properties are optimum values according to manufacturer. Due to the layer by layer production process and the specific design of each individual product values may differ. *If specific properties and/or dimensions are critical, always contact us so we can inform you how to obtain required specifications!*

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Visit Oceanz

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