OCEANZ FLEXIBLE TPU

Datasheet for flexible TPU parts produced by Selective Laser Sintering



Oceanz Flexible TPU is a rubber-like, natural colored powder of a thermoplastic polyurethane. Laser sintered parts made with Oceanz Flexible TPU possess excellent material properties:

- High elasticity, rebound and resistance to fatigue
- Excellent surface quality and level of detail
- Approved for medical applications

Typical applications of the material are hand braces, insoles, grippers, handles and seals. The rubber-like fatigue behavior qualifies Oceanz Flexible TPU as an excellent prototyping and series material. Additionally, the material can be used to print very fine, flexible structures.

Oceanz Flexible TPU is available for retail and industrial applications (ISO 9001) as well as medical grade (ISO 13485) for external applications (e.g. orthotic and prosthetic devices) and can be vapor polished. Oceanz Flexible TPU cannot be colored or polished or coated.

Part properties	Value	Unit
Part color	Natural / Whitish	-
Part density	0.97	g/cm^3
Minimum wall thickness	1.0	mm
Layer thickness	0.10	mm
Max. product size	192 x 240 x 315	mm
Tensile modulus XY	75	MPa
Tensile modulus Z	75	MPa
Tensile strength XY	8	MPa
Tensile strength Z	3-5	MPa
Strain at break XY	150	%
Strain at break Z	30	%
Hardness	88	Shore A
Melting temperature	120-150	°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!***

All information in this data sheet is based on appropriate testing further details of which are available on request and is stated to the best of our knowledge and belief at the time of publication. It is presented apart from contractual obligations and does not constitute any guarantee or warranty express or implied of properties or of process or application possibilities in individual cases. The data are subject to change without notice as part of our continuous development and improvement processes.

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Revision date: July 2026