Glass-filled Fine Polyamide PA 3200 GF for EOSINT P

Application:

PA 3200 GF is suitable for use in all EOSINT P systems with fine polyamide option. The parts fabricated from this material have excellent mechanical properties, very smooth surfaces and high accuracy. The recommended layer thickness is 0.15 mm. Unexposed powder can be reused. Depending on building time it has to be mixed with fresh powder by a ratio of 1:1 or 1:2 (old : new) with new powder to maintain constant process parameters and persisting part quality.

Typical applications of the material are housings and thermally stressed parts.

Material Properties:

Average grain size	Laser diffraction	60	µm
Bulk density	DIN 53466	0,59 – 0,62	g/cm³
Density of laser-sintered part	EOS-Method	1,23 – 1,28	g/cm³

Mechanical Properties:*

Tensile modulus	DIN EN ISO 527	3200 ± 200	N/mm²
Tensile strength	DIN EN ISO 527	48 ± 3	N/mm²
Elongation at break	DIN EN ISO 527	6 ± 3	%
Flexural modulus	DIN EN ISO 178	2100 ± 150	N/mm²
Charpy - Impact strength	DIN EN ISO 179	35 ± 6	kJ/m²
Charpy - Notched imp. strength	DIN EN ISO 179	5,4 ± 0,6	kJ/m²
Izod – Impact strength	DIN EN ISO 180	21,3 ± 1,7	kJ/m²
Izod – Notched impact strength	DIN EN ISO 180	4,2 ± 0,3	kJ/m²
Ball indentation hardness	DIN EN ISO 2039	98	
Shore D-hardness	DIN 53505	80 ± 2	

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Thermal Properties:

Melting point	DIN 53736	172 - 180	°C
Vicat softening temperature B/50	DIN EN ISO 306	166	°C
Vicat softening temperature A/50	DIN EN ISO 306	179	°C

* The mechanical properties depend on the x-, y-, z-position of laser-sintered part and on exposure parameters used.

The data are based on our latest knowledge and are subject to changes without notice. They do not guarantee properties for a particular part and in a particular application.

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