

## Material data sheet

### PA 3200 GF

#### 1 General

Parts made of PA 3200 GF have excellent mechanical properties, very smooth surfaces and high accuracy. Typical applications of the material are housings and thermally stressed parts.

PA 3200 GF is suitable for processing on the following systems:

- ∅ EOSINT P 730, P 700
- ∅ EOSINT P 390, P 385, P 380i, P 380, with or without powder conveying system  
EOSINT P 360, P 350/2 with upgrade 99
- ∅ FORMIGA P 100

#### 2 Technical data

##### General material properties

Average grain size	ISO 13320-1	57	µm
	Laser diffraction	2.24	mil
Bulk density	EN ISO 60	0.63	g/cm <sup>3</sup>
Density of laser-sintered part	EOS-method	1.22	g/cm <sup>3</sup>
		76	lb/ft <sup>3</sup>

##### Mechanical properties

Tensile modulus	EN ISO 527	3200	MPa
	ASTM D638	464	ksi
Tensile strength	EN ISO 527	51	MPa
	ASTM D638	7397	psi
Elongation at break	EN ISO 527	9	%

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Elongation at break	ASTM D638	9	%
Flexural modulus	EN ISO 178	2900	MPa
	ASTM D790	421	ksi
Flexural strength	EN ISO 178	73	MPa
	ASTM D790	10588	psi
Charpy - Impact strength	EN ISO 179	35	kJ/m <sup>2</sup>
Charpy – Notched impact strength	EN ISO 179	5.4	kJ/m <sup>2</sup>
Izod - Impact strength	EN ISO 180	21.3	kJ/m <sup>2</sup>
Izod – Notched impact strength	EN ISO 180	4.2	kJ/m <sup>2</sup>
Ball indentation hardness	EN ISO 2039	98	N/mm <sup>2</sup>
Hardness, Shore D	ISO 868	80	-
	ASTM D2240	80	-

The mechanical properties depend on the x-, y-, z-position and on the exposure parameters used.

### Thermal properties

Melting point	EN ISO 11357-1	172 - 180	°C
Heat deflection temperature	ASTM D648	350	°F
Vicat softening temperature B/50	EN ISO 306	166	°C
	ASTM D1525	331	°F
Vicat softening temperature A/50	EN ISO 306	179	°C
	ASTM D1525	354	°F

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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