



## Material data sheet

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### EOSINT PA 2210 FR for EOSINT P

#### General

Typical application of FR 1 is the manufacture of flame resistant parts with high mechanical properties.

FR 1 contains a chemical flame retardant. In case of fire a carbonating coating arises at the surface of the part, isolating the plastic below.

FR 1 is free of halogens.

FR 1 is tested successfully on the following system:

Ø EOSINT P 380, P 385, P 700

The recommended layer thickness is 0.15 mm. To assure a consistent quality of parts, it is recommended only to use new powder.

#### Technical data

##### General material properties

Bulk density	DIN 53466	0.52	g/cm <sup>3</sup>
Density of laser-sintered part	EOS-method	1.05 ± 0.05	g/cm <sup>3</sup>

##### Mechanical properties

Tensile modulus	DIN EN ISO 527	2250 ± 150	N/mm <sup>2</sup>
Tensile strength	DIN EN ISO 527	45 ± 3	N/mm <sup>2</sup>
Elongation at break	DIN EN ISO 527	5.0 ± 1	%
Flexural modulus	DIN EN ISO 178	1750 ± 100	N/mm <sup>2</sup>
Flexural strength	DIN EN ISO 178	45 ± 2	N/mm <sup>2</sup>

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### Thermal properties

Melting point	DIN 53736	172 – 180	°C
Tests for flammability of plastic materials for parts in devices and appliances	UL 94 / 2.0 mm	V-0	-

Tests for flammability have been conducted by a certified and accredited test laboratory. The test report can be seen at EOS GmbH, feel free to contact us for further information.

You can improve the fire resistance by using a fire retardant coating. It is not known if reused powder still has the full fire resistant properties.

The mechanical properties depend on the x-, y-, z-position of the test parts and on the exposure parameters used. The data is based on our latest knowledge and is subject to change without notice. They do not guarantee properties for a particular part and in a particular application.

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