

Product Portfolio PA 2241 FR

1 Advantages of PA 2241 FR

- Ø Flammability tests already passed at thickness 1.0 mm
- Ø Higher tensile strength and more homogeneous distribution
- Ø Cost reduction (larger recommended building area; refreshability 50:50)
- Ø Identification of powder and parts possible

2 Comparison PA 2210 FR – PA 2241 FR

General properties

		PA 2210 FR	PA 2241 FR
Density of laser-sintered parts		1.06 g/cm ³	1.00 g/cm ³

Mechanical properties

		PA 2210 FR	PA 2241 FR
Tensile modulus (dry / cond.) EN ISO 527	xy-direction	2500 / 2400 MPa	1900 / 1600 MPa
	z-direction	2300 / 2200 MPa	1900 / 1600 MPa
Tensile strength (dry / cond.) EN ISO 527	xy-direction	46 / 43 MPa	49 / 44 MPa
	z-direction	41 / 38 MPa	46 / 41 MPa
Strain at break (dry / cond.) EN ISO 527	xy-direction	4 / 7 %	15 / 22 %
	z-direction	3 / 4 %	6 / 9 %
Flexural modulus (dry / cond.) ISO 178	(at 23° C)	2300 / n.a. MPa	n.a. / n.a. MPa
Flexural strength (dry / cond.) ISO 178	(at 23° C)	65 / n.a. MPa	n.a. / n.a. MPa

Thermal properties

		PA 2210 FR	PA 2241 FR
Melting point EN ISO 11357-1	(new powder)	185 ° C	185 ° C

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Burning behaviour

	PA 2210 FR		PA 2241 FR	
Flammability properties, 12s Ignition time CS 25 / JAR25 / FAR 25 § 25-853 (a) App. F Part I	1.5 / 2.0	mm	1.0 / 1.5 / 2.0	mm
Flammability properties, 60s Ignition time CS 25 / JAR25 / FAR 25 § 25-853 (a) App. F Part I	failed at 1.5 / 2.0	mm	1.0 / 1.5 / 2.0	mm
Smoke generation ABD 0031 (Issue: F), method: AITM 2.0007	1.5 / 2.0	mm	1.0 / 1.5 / 2.0	mm
Toxic gas generation ABD 0031 (Issue: F), method: AITM 3.0005	1.5 / 2.0	mm	1.0 / 1.5 / 2.0	mm
Burning behaviour UL 94 / V-0	≥ 2.0	mm	n.a.	mm
Burning behaviour UL 94 / HB	≥ 1.1	mm	n.a.	mm
Flame retardant	Phosphor-based		Halogen-based	

Ask for the test reports at EOS GmbH, feel free to contact us for further information. The burning behaviours have been tested with specimens manufactured in accordance with the instruction.

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