

OCEANZ PAFR

Datasheet for flame retardant parts produced by Selective Laser Sintering



Oceanz PAFR is a polyamide material with a halogen free, chemical flame retardant. In case of a fire, a carbonating coating develops on the surface of the part, isolating the plastic below. In addition, the material has a higher stiffness compared to regular PA12. Typical applications are where flame retardant behaviour is required, i.e. in the aviation and electronics industry. The material meets JAR 25 and UL94 acceptance criteria. Oceanz PAFR comes in natural whitish colour and is processed in our ISO9001 production environment.

Oceanz PAFR cannot be polished, coloured or coated.

Part properties	Value	Unit
Part colour	Whitish	-
Part density	1.06	g/cm ³
Minimum wall thickness	1.5	mm
Layer thickness	0.15	mm
Max. product size	335 x 335 x 605	mm
Tensile modulus XY / Z	2500 / 2300	MPa
Tensile strength XY / Z	45 / 40	MPa
Strain at break XY / Z	4 / 3	%
Melting temperature	185	°C

Thermal properties	Test results	Value	Unit	Test standard
Flammability	Test passed, 12s	1.7 / 2.0	mm	CS25 / JAR25 / FAR25 §25-853
Smoke density	Test passed	1.7 / 2.0	mm	ABD 0031 (issue: F), method AITM 2.0007
Toxicity	Test passed	1.7 / 2.0	mm	ABD 0031 (issue: F), method AITM 3.0005
Burning behaviour	Test passed, HB	1.1 / 1.2 / 1.3 / 1.4	mm	UL94
	Test passed, HB	3.0	mm	UL94
	Test passed, V-0	2.0 / 2.4 / 3.2 / 4.0	mm	UL94

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!***

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Visit Oceanz

Maxwellstraat 21, 6716 BX EDE
T: +31 (0) 318 769 077
M: info@oceanz.eu
W: www.oceanz.eu

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