



### Material description

PA 2241 FR is a flame retardant polyamide 12 for processing in laser sintering systems. It contains a halogen-based flame retardant. Mainly due to its recyclability, the material is economical, enabling low-cost part production. Typical applications: Aviation (behind panel applications eg. air ducts and air outlet valves).

### Material specification

Colour	White	
<b>3D data:</b>	<b>Dry / Con</b>	
Tensile modulus	- X, Y, Z direction	1900 / 1600MPa
Tensile strength	- horizontal direction (XY) - vertical direction (Z)	49 / 44MPa 46 / 41MPa
Strain at tensile strength	- horizontal direction (XY) - vertical direction (Z)	7 / 11% 6 / 8%
Strain at break	- horizontal direction (XY) - vertical direction (Z)	15 / 22% 6 / 9%
Temp. of deflection under load (1.80 MPa, X direction)	84°C	
Temp. of deflection under load (0.45 MPa, X direction)	154°C	
<b>Thermal properties:</b>	<b>Dry</b>	<b>Test standard</b>
Melting temperature (20°C/min)	185°C	ISO 11357-1/-3
Flammability test passed	1.0, 1.5, 2.0mm	CS 25 / JAR25 / FAR 25 § 25-853 12s ignition time
Smoke density test passed	1.0, 1.5, 2.0mm	ABD 0031 (Issue: F) method: AITM 2.0007
Toxicity test passed	1.0, 1.5, 2.0mm	ABD 0031 (Issue: F) method: AITM 3.0005
Density (laser sintered)	1g/cm <sup>3</sup>	
Bulk density	0.45g/cm <sup>3</sup>	

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