

MATERIAL DATA SHEET: FLAME RETARDANT NYLON 12

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
3D data:		Dry / Con
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
Thermal properties:	Dry	Test Standard
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 ³	
Bulk density	0.45g/cm ³	

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