EOS PA 2241 FR

Polyamide 12

EOS GmbH

Message:

Product information
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.
Properties
flame retardant
economic
high strain at tensile strength
Acceptance criteria
JAR 25 (aviation)
Typical applications
aviation (interior, e.g. air ducts and air outlet valves)

General Information	
Additive	Flame Retardant
Features	Flame Retardant Good Chemical Resistance Good Thermal Stability Grease Resistant Highly Crystalline Oil Resistant Recyclable Material
Uses	Aerospace Applications Aircraft Applications
Agency Ratings	JAR 25.853
Appearance	White
Forms	Powder
Processing Method	3D Printing, Laser Sintering/Melting

Physical	Dry	Conditioned	Unit	Test Method
Density	1.00	--	g/cm³	Internal Method
Apparent Density	0.45	--	g/cm³	ISO 60
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus [1]	1900	1600	MPa	ISO 527-2
Tensile Stress				
6.0% Strain [2]	46.0	--	MPa	ISO 527-2
7.0% Strain [3]	49.0	--	MPa	ISO 527-2
8.0% Strain [4]	--	41.0	MPa	ISO 527-2
11% Strain [5]	--	44.0	MPa	ISO 527-2

Tensile Strain				
Break [6]	6.0	9.0	%	ISO 527-2
Break [7]	15	22	%	ISO 527-2
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature [8]				
0.45 MPa, Unannealed	154	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	84.0	--	°C	ISO 75-2/A
Melting Temperature [9]	185	--	°C	ISO 11357
Flammability	Dry	Conditioned		Test Method
Flame Test				FAR 25.853
12s Ignition Time : 1.00 mm	Passed	--		
12s Ignition Time : 1.50 mm	Passed	--		
12s Ignition Time : 2.00 mm	Passed	--		
60s Ignition Time : 1.00 mm	Passed	--		
60s Ignition Time : 1.50 mm	Passed	--		
60s Ignition Time : 2.00 mm	Passed	--		
Smoke Density				AITM 2.0007
1.00 mm	Passed	--		
1.50 mm	Passed	--		
2.00 mm	Passed	--		
Toxicity				AITM 3.0005
1.00 mm	Passed	--		
1.50 mm	Passed	--		
2.00 mm	Passed	--		

NOTE	
1.	Z Direction
2.	Z Direction
3.	X Direction
4.	Z Direction
5.	X Direction
6.	Z Direction
7.	Y Direction
8.	X Direction
9.	20°C/min

Recommended distributors for this material

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