VESTAMID® L X7167

Polyamide 12

Evonik Industries AG

Technical Data

Product Description

Reinforced, filled and flame-retardant VESTAMID® polyamide 12 compounds

Characterization: high viscosity, with flame retardant, halogen and phosphorus-free, UL94-V2, with processing aid

Applications: profiles for aircraft interiors

In general, it can be said that long-chain, semi-crystalline polyamides absorb little water, are resistant to polar and non-polar solvents, exhibit low creep behavior and high impact resistance and can be used in a wide temperature range. Virtually no other polymer material in this price range exhibits these properties.

General

Additive	• Flame Retardant	• Heat Stabilizer	• Processing Aid
Features	• Abrasion Resistant • Excellent Processability • Fatigue Resistant • Flame Retardant • Food Contact Acceptable • Fuel Resistant • Grease Resistant	• Halogen Free • Heat Stabilized • High ESCR (Stress Crack Resist.) • High Impact Resistance • High Viscosity • Low (to None) Phosphorus Content • Low Friction	• Low Temperature Impact Resistance • Low to No Water Absorption • Noise Damping • Oil Resistant • Semi Crystalline • Solvent Resistant • Vibration Damping
Uses	• Aircraft Interiors	• Profiles	
Agency Ratings	• EU 10/2011	• FDA 21 CFR 177.1500	
Appearance	• Colors Available	• Natural Color	
Forms	• Granules		
Processing Method	• Extrusion		

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.95	%	
Flow	0.60	%	
Water Absorption			ISO 62
Saturation, 23°C	1.5	%	
Equilibrium, 23°C, 50% RH	0.60	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1700	MPa	ISO 527-2
Tensile Stress (Yield)	48.0	MPa	ISO 527-2
Tensile Strain			ISO 527-2
Yield	5.0	%	
Break	> 50	%	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	6.0	kJ/m²	
23°C, Complete Break	9.0	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	130	°C	ISO 75-2/B
1.8 MPa, Unannealed	50.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	150	°C	ISO 306/B
--	175	°C	ISO 306/A
Melting Temperature [3]	178	°C	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	28	kV/mm	IEC 60243-1
Relative Permittivity (23°C, 1 MHz)	3.60		IEC 60250
Dissipation Factor (23°C, 1 MHz)	0.038		IEC 60250
Comparative Tracking Index			IEC 60112
--	600	V	
Solution A [4]	> 600	V	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flammability Classification			IEC 60695-11-10, -20
1.6 mm	V-2		
3.2 mm	V-2		
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Electrolytical Corrosion	A1		IEC 60426
ISO Shortname	PA12, EFH, 22-020		ISO 1874