

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	<ul style="list-style-type: none"> • Abrasion Resistant • Excellent Processability • Fatigue Resistant • Flame Retardant • Food Contact Acceptable • Fuel Resistant • Grease Resistant 	<ul style="list-style-type: none"> • Halogen Free • Heat Stabilized • High ESCR (Stress Crack Resist.) • High Impact Resistance • High Viscosity • Low (to None) Phosphorus Content • Low Friction 	<ul style="list-style-type: none"> • 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/cm ³	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/m ²	
23°C, Complete Break	9.0 kJ/m ²	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	No Break	
23°C	No Break	

VESTAMID® L X7167

Polyamide 12

Evonik Industries AG

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