

# VESTAMID® L L-GF15

Polyamide 12  
Evonik Industries AG

Message:

Reinforced, filled and flame retardant polyamide 12 compounds  
Characterization: 15% chopped strands, medium viscosity, heat stabilized, with processing aid  
Application Examples: gear box housing for electrical car window lifts  
The properties of PA 12 compounds can be modified to suit the requirements of many applications by incorporating various additives such as stabilizers, plasticizers, reinforcements, and fillers.  
The VESTAMID® L compounds of Evonik comprise a range of various products that are customized to the requirements of processors and users. Many of the PA 12 compounds are suitable especially for the injection molding of recision parts; others have been developed specifically for the extrusion process.

General Information			
UL YellowCard	E100211-217739		
Filler / Reinforcement	Glass Fiber,15% Filler by Weight		
Additive	Heat Stabilizer		
	Processing Aid		
Features	Fatigue Resistant		
	Flame Retardant		
	Food Contact Acceptable		
	Fuel Resistant		
	Good Abrasion Resistance		
	Good Impact Resistance		
	Good Processability		
	Grease Resistant		
	Heat Stabilized		
	High ESCR (Stress Crack Resist.)		
	Low to No Water Absorption		
	Medium Viscosity		
	Oil Resistant		
	Solvent Resistant		
	Sound Damping		
	Vibration Damping		
Uses	Automotive Electronics		
	Housings		
Agency Ratings	EU 10/2011		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.12	g/cm³	ISO 1183

Molding Shrinkage			ISO 294-4
Across Flow	0.65	%	
Flow	0.35	%	
Water Absorption			ISO 62
Saturation, 23°C	1.3	%	
Equilibrium, 23°C, 50% RH	0.60	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3900	MPa	ISO 527-2
Tensile Stress (Break)	95.0	MPa	ISO 527-2
Tensile Strain (Break)	6.0	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	11	kJ/m <sup>2</sup>	
23°C, Complete Break	17	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C, Complete Break	80	kJ/m <sup>2</sup>	
23°C, Complete Break	75	kJ/m <sup>2</sup>	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	175	°C	ISO 75-2/B
1.8 MPa, Unannealed	160	°C	ISO 75-2/A
Vicat Softening Temperature			
--	175	°C	ISO 306/A
--	170	°C	ISO 306/B
Melting Temperature <sup>1</sup>	178	°C	ISO 11357-3
CLTE - Flow (23 to 55°C)	8.0E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Electric Strength	44	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	4.00		
23°C, 1 MHz	3.40		
Dissipation Factor			IEC 60250
23°C, 100 Hz	0.038		
23°C, 1 MHz	0.026		
Comparative Tracking Index			IEC 60112
--	600	V	
Solution A <sup>2</sup>	> 600	V	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	HB		
3.20 mm	V-2		

Additional Information	Nominal Value	Test Method
Electrolytical Corrosion	A1	IEC 60426
ISO Shortname	PA12, MHR, 16-050, GF15	ISO 1874
NOTE		
1.	2nd Heating	
2.	50 drops value	

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