

VESTAMID® L L2101F

Polyamide 12

Evonik Industries AG

Message:

Unfilled polyamid 12 compounds

Characterization: high viscosity, steam sterilizable

Application Examples: Packaging films, catheters

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 precision parts; others have been developed specifically for the extrusion process.

General Information			
Features	Fatigue Resistant Food Contact Acceptable Fuel Resistant Good Abrasion Resistance Good Impact Resistance Good Processability Grease Resistant High ESCR (Stress Crack Resist.) High Viscosity Low to No Water Absorption Oil Resistant Solvent Resistant Sound Damping Steam Sterilizable Vibration Damping		
Uses	Film Packaging		
Agency Ratings	EU 10/2011 FDA 21 CFR 177.1500		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.01	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.3	%	
Flow	0.70	%	
Water Absorption			ISO 62

Saturation, 23°C	1.6	%	
Equilibrium, 23°C, 50% RH	0.80	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1400	MPa	ISO 527-2
Tensile Stress (Yield)	45.0	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	9.0	kJ/m ²	
23°C, Complete Break	32	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	110	°C	ISO 75-2/B
1.8 MPa, Unannealed	50.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	170	°C	ISO 306/A
--	140	°C	ISO 306/B
Melting Temperature ¹	178	°C	ISO 11357-3
CLTE - Flow (23 to 55°C)	1.5E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Electric Strength	29	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.70		
23°C, 1 MHz	3.00		
Dissipation Factor			IEC 60250
23°C, 100 Hz	0.045		
23°C, 1 MHz	0.028		
Comparative Tracking Index			IEC 60112
--	600	V	
Solution A ²	> 600	V	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	HB		
3.20 mm	HB		
Additional Information	Nominal Value		Test Method
Electrolytical Corrosion	A1		IEC 60426

ISO Shortname	PA12, F, 22-010	ISO 1874
NOTE		
1.	2nd Heating	
2.	50 drops value	

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

