## VESTAMID® L X7373

Polyamide 12

**Evonik Industries AG** 

## Message:

Unfilled polyamid 12 compounds

Characterization: medium viscosity, heat stabilized, nucleated for very short cycle time

Application Examples: filter and valve housings, bushings, connectors

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	
Additive	Heat Stabilizer
	Nucleating Agent
Features	Fast Molding Cycle
	Fatigue Resistant
	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
	Nucleated
	Oil Resistant
	Solvent Resistant
	Sound Damping
	Vibration Damping
Uses	Bushings
	Connectors
	Filters
	Housings
	Valves/Valve Parts
Agency Ratings	EU 10/2011
Processing Method	Injection Molding

Dhusical	Nominal Value	11	Test Mathed
Physical		Unit	Test Method
Density (23°C)	1.01	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.2	%	
Flow	0.95	%	
Water Absorption			ISO 62
Saturation, 23°C	1.4	%	
Equilibrium, 23°C, 50% RH	0.70	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1500	MPa	ISO 527-2
Tensile Stress (Yield)	47.0	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	6.0	kJ/m²	
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	130	°C	ISO 75-2/B
1.8 MPa, Unannealed	50.0	°C	ISO 75-2/A
Vicat Softening Temperature			
	170	°C	ISO 306/A
	150	°C	ISO 306/B
Melting Temperature <sup>1</sup>	470		
	178	°C	ISO 11357-3
CLTE - Flow (23 to 55°C)	1.5E-4	cm/cm/°C	ISO 11357-3 ISO 11359-2
CLTE - Flow (23 to 55°C) Electrical			
	1.5E-4	cm/cm/°C	ISO 11359-2
Electrical	1.5E-4 Nominal Value	cm/cm/°C Unit	ISO 11359-2 Test Method
Electrical Volume Resistivity Electric Strength	1.5E-4 Nominal Value 1.0E+15	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093
Electrical Volume Resistivity	1.5E-4 Nominal Value 1.0E+15	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1
Electrical Volume Resistivity Electric Strength Relative Permittivity 23°C, 100 Hz	1.5E-4 Nominal Value 1.0E+15 30 4.20	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1
Electrical Volume Resistivity Electric Strength Relative Permittivity 23°C, 100 Hz 23°C, 1 MHz	1.5E-4 Nominal Value 1.0E+15 30	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1 IEC 60250
Electrical Volume Resistivity Electric Strength Relative Permittivity 23°C, 100 Hz 23°C, 1 MHz Dissipation Factor	1.5E-4   Nominal Value   1.0E+15   30   4.20   3.80	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1
Electrical Volume Resistivity Electric Strength Relative Permittivity 23°C, 100 Hz 23°C, 1 MHz Dissipation Factor 23°C, 100 Hz	1.5E-4 Nominal Value 1.0E+15 30 4.20 3.80 0.075	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1 IEC 60250
Electrical Volume Resistivity Electric Strength Relative Permittivity 23°C, 100 Hz 23°C, 1 MHz Dissipation Factor 23°C, 100 Hz 23°C, 1 MHz	1.5E-4   Nominal Value   1.0E+15   30   4.20   3.80	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1 IEC 60250 IEC 60250
Electrical Volume Resistivity Electric Strength Relative Permittivity 23°C, 100 Hz 23°C, 1 MHz Dissipation Factor 23°C, 100 Hz	1.5E-4 Nominal Value 1.0E+15 30 4.20 3.80 0.075	cm/cm/°C Unit ohms∙cm	ISO 11359-2 Test Method IEC 60093 IEC 60243-1 IEC 60250

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	НВ		
3.20 mm	НВ		
Additional Information	Nominal Value		Test Method
Electrolytical Corrosion	A1		IEC 60426
ISO Shortname	PA12, MHR, 18-010N		ISO 1874
NOTE			
1.	2nd Heating		
2.	50 drops value		

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