# **VESTAMID® L L-R3-MHI**

## Polyamide 12

#### **Evonik Industries AG**

#### Message:

Permanently antistatic and electrically conductive polyamide 12 compounds

Characterization: medium viscosity, heat- and light-stabilized, increased cold impact strength, with processing aid

Application Examples: antistatic and electrically conductive moldings or extrudates for use in areas prone to explosion such as coal mining and other industries, e.g., housings for explosion-protected measurement equipment and switches, ventilation fans for electric motors, chair castors, loud speaker boxes, telephone and radio equipment, profiles for assembly lines, also with electric shock protection

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			
	Processing Aid			
	UV Stabilizer			
Features	Antistatic			
	Electrically Conductive			
	Fatigue Resistant			
	Food Contact Acceptable			
	Fuel Resistant			
	Good Abrasion Resistance			
	Good Impact Resistance			
	Good Processability			
	Grease Resistant			
	Heat Stabilized			
	High ESCR (Stress Crack Resist.)			
	Light Stabilized			
	Low to No Water Absorption			
	Medium Viscosity			
	Oil Resistant			
	Solvent Resistant			
	Sound Damping			
	Vibration Damping			
Uses	Electrical/Electronic Applications			
	Housings			
	Mining Applications			
	Profiles			

Agency Ratings	EU 10/2011			
Appearance	Black			
Processing Method	Injection Molding			
Multi-Point Data	Specific Volume vs Temperature (ISO 11403-2)			
Physical	Nominal Value	Unit	Test Method	
Density (23°C)	1.10	g/cm³	ISO 1183	
Molding Shrinkage			ISO 294-4	
Across Flow	1.6	%		
Flow	1.5	%		
Water Absorption			ISO 62	
Saturation, 23°C	1.5	%		
Equilibrium, 23°C, 50% RH	0.80	%		
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus	1600	MPa	ISO 527-2	
Tensile Stress (Yield)	38.0	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	15	kJ/m²		
23°C, Partial Break	55	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				
	175	°C	ISO 306/A	
	140	°C	ISO 306/B	
Melting Temperature <sup>1</sup>	178	°C	ISO 11357-3	
CLTE - Flow (23 to 55°C)	1.8E-4	cm/cm/°C	ISO 11359-2	
Electrical	Nominal Value	Unit	Test Method	
Volume Resistivity	1.0E+4	ohms·cm	IEC 60093	
Insulation Resistance	1.0E+4	ohms	IEC 60167	
Flammability	Nominal Value	Unit	Test Method	
Flame Rating			UL 94	
1.60 mm	НВ			
3.20 mm	НВ			
Additional Information	Nominal Value		Test Method	

ISO Shortname	PA12-HI, MHZ, 16-020	ISO 1874
NOTE		

1. 2nd Heating

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