

VESTAMID® L L-R4-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 precision 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		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.06	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.7	%	
Flow	1.8	%	
Water Absorption			ISO 62
Saturation, 23°C	1.5	%	
Equilibrium, 23°C, 50% RH	0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1250	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	36.0	MPa	
Break	33.0	MPa	
Tensile Strain			ISO 527-2
Yield	8.0	%	
Break	42	%	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	12	kJ/m ²	
23°C, Partial Break	55	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	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 ¹	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+5	ohms · cm	IEC 60093
Insulation Resistance	1.0E+5	ohms	IEC 60167
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	HB		
3.20 mm	HB		

Additional Information	Nominal Value	Test Method
ISO Shortname	PA12-HI, MHZ, 16-010	ISO 1874
NOTE		

1. 2nd Heating

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