VESTAMID® L L2141

Polyamide 12

Evonik Industries AG

Message:

Unfilled polyamid 12 compounds

Characterization: high viscosity, light and higher heat stabilized than L2140, with processing aid

Application Examples: Hydraulic clutch lines, vacuum lines

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	Fatigue Resistant				
	Food Contact Acceptable				
	Fuel Resistant				
	Good Abrasion Resistance				
	Good Impact Resistance				
	Good Processability				
	Grease Resistant				
	Heat Stabilized				
	High ESCR (Stress Crack Resist.)				
	High Viscosity				
	Light Stabilized				
	Low to No Water Absorption				
	Oil Resistant				
	Solvent Resistant				
	Sound Damping				
	Vibration Damping				
Uses	Hydraulic Applications				
Agency Ratings	EU 10/2011				
Appearance	Black				
Processing Method	Extrusion				
Physical	Nominal Value	Unit	Test Method		
Density (23°C)	1.01	g/cm³	ISO 1183		
Molding Shrinkage			ISO 294-4		
Across Flow	1.3	%			

Flow	0.70	%	
Water Absorption			ISO 62
Saturation, 23°C	1.5	%	
Equilibrium, 23°C, 50% RH	0.70	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1500	MPa	ISO 527-2
Tensile Stress (Yield)	46.0	MPa	ISO 527-2
Tensile Strain	40.0	IVIFa	ISO 527-2
Yield	5.0	%	130 327-2
		%	
Break	> 50		Test Mathead
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	8.0	kJ/m ²	
23°C, Complete Break	10	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	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+12	ohms·cm	IEC 60093
Electric Strength	35	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	9.70		
23°C, 1 MHz	4.00		
Dissipation Factor			IEC 60250
23°C, 100 Hz	0.21		
23°C, 1 MHz	0.11		
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	НВ		
	11B		

Additional Information	Nominal Value	Test Method
Electrolytical Corrosion	A1	IEC 60426
ISO Shortname	PA12, EHL, 22-010	ISO 1874
NOTE		
1.	2nd Heating	
2.	50 drops value	

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