

VESTAMID® L X7293

Polyamide 12
Evonik Industries AG

Message:

Plasticized polyamide 12 compounds
Characterization: high viscosity, plasticized, light- and heat-stabilized, with processing aid, increased cold impact strength
Application Examples: air brake line systems
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		
	Plasticizer		
	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		
	Plasticized		
	Solvent Resistant		
	Sound Damping		
	Vibration Damping		
Agency Ratings		EU 10/2011	
Processing Method		Extrusion	
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.02	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.4	%	

Flow	0.65	%	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	400	MPa	ISO 527-2
Tensile Stress (Yield)	27.0	MPa	ISO 527-2
Tensile Strain			ISO 527-2
Yield	32	%	
Break	> 50	%	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	7.0	kJ/m ²	
23°C, Partial Break	130	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	100	°C	ISO 75-2/B
1.8 MPa, Unannealed	45.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	165	°C	ISO 306/A
--	130	°C	ISO 306/B
Melting Temperature ¹	172	°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+12	ohms · cm	IEC 60093
Electric Strength	30	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	11.0		
23°C, 1 MHz	4.60		
Dissipation Factor			IEC 60250
23°C, 100 Hz	0.20		
23°C, 1 MHz	0.19		
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

ISO Shortname	PA12-HIP, EHL, 22-004	ISO 1874
NOTE		
1.	2nd Heating	
2.	50 drops value	

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Recommended distributors for this material

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

