

# Vestamid® L1940 nf

## Polyamide 12

### Evonik Degussa AG

General			
Additive	• Lubricant		
Features	• High Heat Resistance	• Lubricated	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	
Multi-Point Data	• Creep Modulus vs. Time (ISO 11403-1) • Isochronous Stress vs. Strain (ISO 11403-1)	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)	• Shear Modulus vs. Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)
Physical	Nominal Value	Unit	Test Method
Density	1010	kg/m <sup>3</sup>	ISO 1183 <sup>2</sup>
Melt volume-flow rate (275°C/5.0 kg)	110	cm <sup>3</sup> /10min	ISO 1133 <sup>2</sup>
Molding Shrinkage			ISO 2577 <sup>2</sup>
Flow	1.1	%	
Across Flow	1.2	%	
Water Absorption			ISO 62 <sup>2</sup>
Saturation	1.5	%	
Equilibrium	0.80	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile modulus	1350	MPa	ISO 527-2 <sup>2</sup>
Tensile Stress (Yield)	45.0	MPa	ISO 527-2 <sup>2</sup>
Tensile Strain (Yield)	5.0	%	ISO 527-2 <sup>2</sup>
Nominal strain at break	> 50	%	ISO 527-2 <sup>2</sup>
Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA <sup>2</sup>
-30°C	9.00	kJ/m <sup>2</sup>	
23°C	6.00	kJ/m <sup>2</sup>	
Charpy impact strength			ISO 179/1eU <sup>2</sup>
-30°C	No Break		
23°C	No Break		
Puncture energy			ISO 6603-2 <sup>2</sup>
-30°C	54.0	J	
23°C	44.0	J	
Puncture - maximum force			ISO 6603-2 <sup>2</sup>
-30°C	4320	N	
23°C	3280	N	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2 <sup>2</sup>
0.45 MPa	110	°C	
1.8 MPa	50.0	°C	
Vicat Softening Temperature			ISO 306 <sup>2</sup>
50°C/h, B (50N)	140	°C	
Melting Temperature <sup>3</sup>	178	°C	ISO 11357-3 <sup>2</sup>
CLTE			ISO 11359-2 <sup>2</sup>
Flow	0.00015	cm/cm/°C	
Transverse	0.00015	cm/cm/°C	

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Electrical	Nominal Value	Unit	Test Method
Volume resistivity	> 1.0E+13	ohm·m	IEC 60093 <sup>2</sup>
Relative Permittivity			IEC 60250 <sup>2</sup>
100 Hz	3.80		
1 MHz	2.50		
Dissipation Factor			IEC 60250 <sup>2</sup>
100 Hz	0.045		
1 MHz	0.031		
Electric strength	27	kV/mm	IEC 60243-1 <sup>2</sup>
Flammability	Nominal Value	Unit	Test Method
Burning Behav. at 1.6mm nom. thickn.			ISO 1210 <sup>2</sup>
1.50 mm, UL	HB		
Burning Behav. at thickness h (3.00 mm, UL)	HB		ISO 1210 <sup>2</sup>