CAMPUS® Datasheet

VESTAMID® LX9012 nc (nf) - PA12
Evonik Industries AG

Product Texts

VESTAMID® LX9012 nc

Heat stabilized and light resistant polyamide 12 compound

Resin: ISO 1874 - PA12,EHL,22-010

VESTAMID® LX9012 has especially been developed for the extrusion and co-extrusion of ski upper and decorative films. Decoration on the bottom side of injection molded sports shoe soles is a further application field.

Films made of **VESTAMID® LX9012** feature high transparency, good screen and sublimation printing, outstanding scratch resistance, and excellent impact strength at low temperatures.

The semi-crystalline compounds based on PA 12 absorb only quantities of water.

Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	**1.0 / ***	%	ISO 294-4, 2577
Molding shrinkage, normal	**1.4 / ***	%	ISO 294-4, 2577
Mechanical properties	**dry / cond**	**Unit**	**Test Standard**
Tensile Modulus	**1100 / -**	MPa	ISO 527-1/-2
Yield stress	**37 / -**	MPa	ISO 527-1/-2
Yield strain	**5 / -**	%	ISO 527-1/-2
Nominal strain at break	**>50 / -**	%	ISO 527-1/-2
Charpy impact strength, +23°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N / -**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**19 / -**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**15 / -**	kJ/m²	ISO 179/1eA
Thermal properties	**dry / cond**	**Unit**	**Test Standard**
Melting temperature, 10°C/min	**176 / ***	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	**45 / ***	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**120 / ***	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	**130 / ***	°C	ISO 306
Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested (1.5)	**1.6 / ***	mm	IEC 60695-11-10
Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested (h)	**3.2 / ***	mm	IEC 60695-11-10
Electrical properties	**dry / cond**	**Unit**	**Test Standard**
Relative permittivity, 100Hz	**3.8 / -**	-	IEC 60250
Relative permittivity, 1MHz	**3 / -**	-	IEC 60250
Dissipation factor, 100Hz	**530 / -**	E-4	IEC 60250
Dissipation factor, 1MHz	**280 / -**	E-4	IEC 60250
Volume resistivity	**1E12 / -**	Ohm*m	IEC 60093
Electric strength	**36 / -**	kV/mm	IEC 60243-1

Other properties	dry / cond	Unit	Test Standard
Water absorption	**1.5 / ***	%	Sim. to ISO 62
Humidity absorption	**0.8 / ***	%	Sim. to ISO 62
Density	**1010 / -**	kg/m³	ISO 1183

Characteristics

Processing
Injection Molding, Film Extrusion, Profile Extrusion

Delivery form
Pellets

Special Characteristics
Light stabilized or stable to light, Heat stabilized or stable to heat, Transparent

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

PREPROCESSING INFORMATION
Maximum Water Content: 0.1 %
When the indicated water content is exceeded, the resin must be dried. The drying time is dependent on the drying temperature. At a drying temperature of 80 °C we recommend, depending on the water content, a drying time of 8 - 16 hours. Fresh air dryers are acceptable, better would be a dry air or vacuum dryer. Please note our product literature, plasticized resins can lose plasticizer during drying.
PROCESSING INFORMATION
Melt Temperature : 220 - 250 °C
Mold Temperature : 80 °C

Film extrusion

PREPROCESSING INFORMATION
Maximum Water Content: 0.1 %
When the indicated water content is exceeded, the resin must be dried. The drying time is dependent on the drying temperature. At a drying temperature of 80 °C we recommend, depending on the water content, a drying time of 8 - 16 hours. Fresh air dryers are acceptable, better would be a dry air or vacuum dryer. Please note our product literature, plasticized resins can lose plasticizer during drying.
PROCESSING INFORMATION
Melt Temperature : 230 - 260 °C

Profile extrusion

PREPROCESSING INFORMATION
Maximum Water Content: 0.1 %
When the indicated water content is exceeded, the resin must be dried. The drying time is dependent on the drying temperature. At a drying temperature of 80 °C we recommend, depending on the water content, a drying time of 8 - 16 hours. Fresh air dryers are acceptable, better would be a dry air or vacuum dryer. Please note our product literature, plasticized resins can lose plasticizer during drying.
PROCESSING INFORMATION
Melt Temperature : 230 - 270 °C

Chemical Media Resistance

Acids

- Acetic Acid (5% by mass) (23°C)
- Citric Acid solution (10% by mass) (23°C)

Bases

- Sodium Hydroxide solution (35% by mass) (23°C)
- Sodium Hydroxide solution (1% by mass) (23°C)
- Ammonium Hydroxide solution (10% by mass) (23°C)

Alcohols

- Isopropyl alcohol (23°C)
- Methanol (23°C)
- Ethanol (23°C)

Hydrocarbons

- n-Hexane (23°C)
- Toluene (23°C)
- iso-Octane (23°C)

Ketones

- Acetone (23°C)

Ethers

- Diethyl ether (23°C)

Salt solutions

- Sodium Chloride solution (10% by mass) (23°C)
- Sodium Carbonate solution (20% by mass) (23°C)
- Sodium Carbonate solution (2% by mass) (23°C)

Other

- Ethyl Acetate (23°C)
- Hydrogen peroxide (23°C)
- Water (23°C)

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification. Should you have any further questions concerning material behavior or properties, please contact us at the following address :

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NAFTA:
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