

Product Information

# VESTAMID® LX9029

## HIGH VISCOSITY, PLASTICIZED PA12 COMPOUND

**VESTAMID® LX9029 NC** is a high viscosity, plasticized, heat- and light stabilized PA12 compound for extrusion and injection molding, especially suitable for the manufacturing of highly flexible tubes and hoses.

The material based on PA12 absorbs only small amounts of water. Components made from this material therefore show excellent dimensional stability under changing ambient humidity.

VESTAMID® LX9029 NC is supplied as cylindrical granules, ready for processing, in moisture-proof polyethylene bags.

The use of colorants may affect property values.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

The results shown have been generated from a low number of production lots. Therefore, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

### Key Features

**Industrial Sector**

Sustainable, Industry and Engineering, Sports and Lifestyle

**Sustainability**

Sustainable electricity

**Processing**

Injection molding, Extrusion

**Delivery form**

Pellets, Granules

**Resistance to**

UV / light / weathering

**Electrical**

Insulating

**Additives**

Unfilled

LCA-values	dry	Unit	Test Standard
LCA name of certificate	<a href="#">VESTAMID® L Compound high</a>	-	ISO 14040, 14044
LCA certifier	<a href="#">TÜV Rheinland</a>	-	ISO 14040, 14044
Blue water consumption	<b>23.9</b>	kg	ISO 14040, 14044
Global Warming Potential incl. bio. C incl. LUC	<b>5.8</b>	kg CO <sub>2</sub> eq./kg	ISO 14040, 14044
Global Warming Potential excl. bio. C incl. LUC	<b>5.8</b>	kg CO <sub>2</sub> eq./kg	ISO 14040, 14044
Land use (ReCiPe 2016)	<b>0.1</b>	Annual crop eq. y	ISO 14040, 14044
GWP savings as compared to 2023 reference	<b>-2.1</b>	kg CO <sub>2</sub> eq./kg	ISO 14040, 14044

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile modulus	<b>34800 / -</b>	psi	ISO 527
Stress at 50% strain	<b>2760 / -</b>	psi	ISO 527
Stress at break	<b>5800 / -</b>	psi	ISO 527
Nominal strain at break, tB	<b>320 / -</b>	%	ISO 527
Charpy impact strength, +23°C	<b>N / -</b>	ftlb/in <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	<b>N / -</b>	ftlb/in <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	<b>52.3 / -</b>	ftlb/in <sup>2</sup>	ISO 179/1eA
Type of failure	<b>P / -</b>	-	-
Charpy notched impact strength, -30°C	<b>1.9 / -</b>	ftlb/in <sup>2</sup>	ISO 179/1eA
Type of failure	<b>C / -</b>	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	<b>331 / *</b>	°F	ISO 11357-1/-3
Melting Temperature	<b>331</b>	°F	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	<b>1.02 / -</b>	g/cm <sup>3</sup>	ISO 1183
Density	<b>1.02</b>	g/cm <sup>3</sup>	ASTM D 792

## VESTAMID®

Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	<b>0.7 / *</b>	%	ISO 294-4, 2577
Molding shrinkage, normal	<b>1.1 / *</b>	%	ISO 294-4, 2577
Mold temperature	<b>140 / *</b>	°F	-
Melt temperature	<b>428 / *</b>	°F	-

Polymer analytics	dry / cond	Unit	Test Standard
Viscosity number	<b>4150 / *</b>	in <sup>3</sup> /lb	ISO 307, 1157, 1628
Corrected Viscosity number	<b>220 / *</b>	cm <sup>3</sup> /g	ISO 307, 1157, 1628

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	<b>428</b>	°F	ISO 294
Injection Molding, mold temperature	<b>140</b>	°F	ISO 294
Injection Molding, injection velocity	<b>7.87</b>	in/s	ISO 294

### Characteristics

#### Applications

Tube and hose

#### Color

Natural color

#### Processing

Profile extrusion

#### Additives

Plasticizer

#### Special Characteristics

Light-stabilized, U.V. stabilized, High heat resistant, High viscosity