

**Product Texts**

**Glass fibre reinforced (15%) PA12 resin for the injection moulding of rigid and tough parts**

**VESTAMID® L-GF15 NC** is a glass fiber –reinforced heat stabilized Polyamide 12 for injection molding. The material contains about 15% glass fibers, an ageing protective agent and a processing aid for a fast and even form filling. Due to the reinforcement moldings from this compound exhibit a higher strength and good heat resistance, excellent for gear housings for electric window openers in cars.

Further advantages of VESTAMID® L-GF15 NC are the characterizing properties of PA12, e.g., low water absorption, good dimensional stability and nearly constant mechanical properties at changing ambient humidity.

VESTAMID® L-GF15 NC is supplied as cylindrical granules, ready for processing, in moisture-proof bags.

The use of colorants may change 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.

For information about processing of VESTAMID®, please follow the general commendations about [“Processing of VESTAMID® compounds”](#).

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT [EVONIK-HP@EVONIK.COM](mailto:EVONIK-HP@EVONIK.COM)

OR VISIT OUR PRODUCT AT [WWW.VESTAMID.COM](http://WWW.VESTAMID.COM)

<b>Processing/Physical Characteristics</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	<b>55 / *</b>	cm <sup>3</sup> /10min	ISO 1133
Temperature	<b>275 / *</b>	°C	-
Load	<b>5 / *</b>	kg	-
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.3 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>0.7 / *</b>	%	ISO 294-4, 2577

[C]: CAMPUS

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>4200 / 3600</b>	MPa	ISO 527
<sup>[C]</sup> Yield stress	<b>90 / 81</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>4 / 4</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>5 / 4</b>	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	<b>64 / 49</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Type of failure	<b>C / C</b>	-	-
<sup>[C]</sup> Charpy impact strength, -30°C	<b>80 / 55</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Type of failure	<b>C / C</b>	-	-
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>12 / 9</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Type of failure	<b>C / C</b>	-	-
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>11 / 7</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Type of failure	<b>C / C</b>	-	-

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	<b>178 / *</b>	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>160 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	<b>175 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	<b>170 / *</b>	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>80 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	<b>HB / *</b>	class	IEC 60695-11-10
Thickness tested	<b>1.6 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
Yellow Card available	<b>yes / *</b>	-	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	<b>4 / 5.2</b>	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	<b>3.4 / 3.3</b>	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	<b>380 / -</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	<b>260 / 450</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	<b>&gt;1E13 / 1.8E12</b>	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Electric strength	<b>50 / 47</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>600 / -</b>	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	<b>1.3 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>0.6 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1120 / -</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	<b>260</b>	°C	ISO 294
Injection Molding, mold temperature	<b>80</b>	°C	ISO 294
Injection Molding, injection velocity	<b>200</b>	mm/s	ISO 294
Injection Molding, pressure at hold	<b>70</b>	MPa	ISO 294

[C]: CAMPUS

**Characteristics**

**Processing**

Injection Molding

**Delivery form**

Pellets, Natural Color

**Additives**

Lubricants

**Special Characteristics**

Heat stabilized or stable to heat

**Applications**

Automotive

**Regional Availability**

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