VESTAMID® L-GF30 BK E70285

PA12-GF30 Evonik Operations GmbH

Product Texts

Glass-fiber reinforced, laser-weldable polyamide 12

VESTAMID® L-GF30 BK E70285 is a glass fiber reinforced, heat-stabilized PA 12 compound with good IR laser transparency for injection molding. The material contains about 30% glass fibers, an ageing protective agent and processing aid for a fast and even form filling.

VESTAMID® L-GF30 BK E70285 is laser-weldable by a diode-pumped or solid-state laser in the range of λ = 808–1064 nm. Using glass fiber reinforcement the strength and the heat deflection temperature are significantly increased.

Further advantages of VESTAMID® L-GF30 BK E70285 are the characteristic properties of polyamide 12 as low water absorption, good dimensional stability and almost the same properties at changing ambient humidity.

VESTAMID® L-GF30 BK E70285 is supplied as cylindrical pellets 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
OR VISIT OUR PRODUCT AT WWW.VESTAMID.COM

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**11 / ***	cm³/10min	ISO 1133
Temperature	**250 / ***	°C	-
Load	**5 / ***	kg	-
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.9 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**6800 / -**	MPa	ISO 527
[C] Charpy impact strength, +23°C	**85 / -**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C / -**	-	-
[C] Charpy impact strength, -30°C	**100 / -**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, +23°C	**23 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, -30°C	**21 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**178 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**165 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**175 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**175 / ***	°C	ISO 306

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.2 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**290 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**7.2E12 / -**	Ohm*m	IEC 62631-3-1
[C] Electric strength	**48 / -**	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**1.1 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**0.6 / ***	%	Sim. to ISO 62
[C] Density	**1240 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**250**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Black

Special Characteristics
Heat stabilized or stable to heat

Features
Laser Weldable, Weldable

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