Product Texts

Medium-viscosity, heat-stabilized, glass fiber–reinforced compound based on Nylon 12

VESTAMID® L1833 is a 23% glass fiber-reinforced, easily demoldable and heat-stabilized polyamide 12 compound.

Due to its mold release properties, VESTAMID® L1833 is suitable for the efficient production of injection molded parts with short cycle times.

Further advantages of VESTAMID® L1833 are the characteristic properties of polyamide 12 as low water absorption, good dimensional stability and almost the same properties at changing ambient humidity.
VESTAMID® L1833 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
OR VISIT OUR PRODUCT AT WWW.VESTAMID.COM

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**50 / ***	cm³/10min	ISO 1133
Temperature	**275 / ***	°C	-
Load	**5 / ***	kg	-
[C] Molding shrinkage, parallel	**0.2 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.7 / ***	%	ISO 294-4, 2577
[C] Density of melt	**1080**	kg/m³	-
[C] Thermal conductivity of melt	**0.26**	W/(m K)	-
[C] Spec. heat capacity of melt	**2640**	J/(kg K)	-
[C] Ejection temperature	**180**	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**5500 / 4800**	MPa	ISO 527
[C] Yield stress	**107 / 95**	MPa	ISO 527
[C] Yield strain	**4 / 5**	%	ISO 527
[C] Nominal strain at break	**6 / 6.5**	%	ISO 527
[C] Tensile creep modulus, 1h	***** / 5000**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	***** / 3700**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**86 / 70**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C / -**	-	-
[C] Charpy impact strength, -30°C	**95 / 75**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, +23°C	**21 / 23**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, -30°C	**16 / 17**	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] Glass transition temperature, 10°C/min	**40 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**160 / ***	°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] Coeff. of linear therm. expansion, parallel	**70 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**80 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.6 / ***	mm	-
Yellow Card available	**yes / ***	-	-
Yellow Card available	**yes / ***	-	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4.1 / 5**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.4 / 4**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**370 / 700**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**260 / 450**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / 2E12**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / >1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**41 / 45**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / 600**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**1.2 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**0.6 / ***	%	Sim. to ISO 62
[C] Density	**1170 / 1170**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**240**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294
Injection Molding, pressure at hold	**70**	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Natural Color

Additives
Lubricants

Special Characteristics
Heat stabilized or stable to heat

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