

Product Information

VESTAMID® L1833 BK 9.7623

GLASS FIBER-REINFORCED, EASILY DEMOLDABLE AND HEAT-STABILIZED POLYAMIDE 12 COMPOUND



VESTAMID® L1833 BK 9.7623 is a 23% glass fiber-reinforced, easily demoldable and heat-stabilized polyamide 12 compound.

Due to its mold release properties, VESTAMID® L1833 BK 9.7623 is suitable for the efficient production of injection molded parts with short cycle times.

VESTAMID® L1833 BK 9.7623 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.

Key Features

Industrial Sector

Automotive and Mobility, Sustainable

Sustainability

Sustainable electricity

Processing

Injection molding

Delivery form

Pellets, Granules

Resistance to

Heat (thermal stability), UV / light / weathering, Oil / fuels

Electrical

Insulating

Conformity

Automotive

Additives

Glass fibers

LCA-values

LCA name of certificate

dry

[VESTAMID® L GF medium](#)

Unit

-

Test Standard

ISO 14040, 14044

LCA certifier

[TÜV Rheinland](#)

-

ISO 14040, 14044

Blue water consumption	23.6	kg	ISO 14040, 14044
Global Warming Potential incl. bio. C incl. LUC	5.1	kg CO ₂ eq./kg	ISO 14040, 14044
Global Warming Potential excl. bio. C incl. LUC	5.1	kg CO ₂ eq./kg	ISO 14040, 14044
Land use (ReCiPe 2016)	0.1	Annual crop eq. y	ISO 14040, 14044
GWP savings as compared to 2023 reference	-2.3	kg CO ₂ eq./kg	ISO 14040, 14044

Mechanical properties ISO	dry / cond	Unit	Test Standard
Tensile modulus	5500 / 4650	MPa	ISO 527
Tensile strength	106 / 100	MPa	ISO 527
Yield stress	106 / 100	MPa	ISO 527
Yield strain	4 / 5	%	ISO 527
Stress at break	105 / 97	MPa	ISO 527
Nominal strain at break, tB	7 / 7	%	ISO 527
Charpy impact strength, +23°C	90 / 81	kJ/m ²	ISO 179/1eU
Type of failure	C / C	-	-
Charpy impact strength, -30°C	95 / 83	kJ/m ²	ISO 179/1eU
Type of failure	C / C	-	-
Charpy notched impact strength, +23°C	25 / 18	kJ/m ²	ISO 179/1eA
Type of failure	C / C	-	-
Charpy notched impact strength, -30°C	16 / 13	kJ/m ²	ISO 179/1eA
Type of failure	C / C	-	-
Flexural modulus, 23°C	5000 / 4250	MPa	ISO 178
Flexural stress at conv. deflection, 23°C	- / 124	MPa	ISO 178
Flexural strength, 23°C	- / 150	MPa	ISO 178
Flexural strain at flexural strength, 23°C	- / 7	%	ISO 178
Flexural stress at break, 23°C	- / 132	MPa	ISO 178
Flexural strain at break, 23°C	- / 9	%	ISO 178

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	178 / *	°C	ISO 11357-1/-3
Glass transition temperature, DSC	40 / *	°C	ISO 11357-1/-2
Temp. of deflection under load A, 1.80 MPa	160 / *	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	175 / *	°C	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	175 / *	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	175 / *	°C	ISO 306
Coeff. of linear therm. expansion, 23°C to 55 °C, parallel	70 / *	E-6/K	ISO 11359-1/-2
Melting Temperature	178	°C	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	1170 / -	kg/m ³	ISO 1183
Water absorption	1.2 / *	%	Sim. to ISO 62
Humidity absorption	0.6 / *	%	Sim. to ISO 62
Density	1170	kg/m ³	ASTM D 792

Burning Behav.	dry / cond	Unit	Test Standard
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
Burnin behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity, V	1E13 / 2.3E12	Ohm*m	IEC 62631-3-1
Surface resistivity, C, circular electrodes	- / >1E15	Ohm per square	IEC 62631-3-2
Relative permittivity, 50Hz	2.7 / -	-	IEC 62631-2-1
Relative permittivity, 100Hz	2.6 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.3 / -	-	IEC 62631-2-1
Dissipation factor, 1MHz	158 / -	E-4	IEC 62631-2-1

Dielectric strength, AC, S20/S20, t. 1 mm	- / 49	kV/mm	IEC 60243-1
Dielectric strength, AC, S20/P50	41 / -	kV/mm	Sim. to IEC 60243-1
CTI, test solution A, 50 drops value	600 / -	-	IEC 60112
Assessment of the insulation group	I	-	DIN EN 60664-1

Rheological properties	dry / cond	Unit	Test Standard
Melt volume-flow rate, MVR	41 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577
Mold temperature	80 / *	°C	-
Melt temperature	250 / *	°C	-

Test specimen production	dry	Unit	Test Standard
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

Characteristics

Special Characteristics

Medium viscosity

Color

Black