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VESTAMID®

Product Information

VESTAMID® L-GF30 BK 9.7503

GLASS FIBER–REINFORCED HEAT STABILIZED POLYAMIDE 12

VESTAMID® L-GF30 BK 9.7503 is a glass fiber–reinforced heat stabilized Polyamide 12 for injection molding. The material contains about 30% 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.

Further advantages of VESTAMID® L-GF30 BK 9.7506 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-GF30 BK 9.7503 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.

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

Sustainability
Sustainable electricity

Delivery form
Pellets, Granules

Resistance to
Heat (thermal stability)

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Processing
Injection molding

Additives
Glass fibers

LCA-values	dry	Unit	Test Standard
LCA name of certificate	VESTAMID® L GF medium	-	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	**1.03E6 / -**	psi	ISO 527
Tensile strength	**17500 / -**	psi	ISO 527
Stress at break	**17400 / -**	psi	ISO 527
Nominal strain at break, tB	**6 / -**	%	ISO 527
Charpy impact strength, +23°C	**42.8 / -**	ftlb/in²	ISO 179/1eU
Type of failure	**C / -**	-	-
Charpy impact strength, -30°C	**47.6 / -**	ftlb/in²	ISO 179/1eU
Type of failure	**C / -**	-	-
Charpy notched impact strength, +23°C	**10.9 / -**	ftlb/in²	ISO 179/1eA
Type of failure	**C / -**	-	-
Charpy notched impact strength, -30°C	**9.99 / -**	ftlb/in²	ISO 179/1eA
Type of failure	**C / -**	-	-

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature	**352 / ***	°F	ISO 11357-1/-3

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Temp. of deflection under load A, 1.80 MPa	**329 / ***	°F	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	**347 / ***	°F	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	**347 / ***	°F	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	**347 / ***	°F	ISO 306
Melting Temperature	**352**	°F	ASTM D 3418

Physical properties	dry / cond	Unit	Test Standard
Density	**1.24 / -**	g/cm³	ISO 1183
Density	**1.24**	g/cm³	ASTM D 792

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	**482**	°F	ISO 294
Injection Molding, mold temperature	**176**	°F	ISO 294
Injection Molding, injection velocity	**7.87**	in/s	ISO 294

Characteristics

Applications
Encapsulation

Special Characteristics
High heat resistant

Color
Black

Additives
Antioxidant agent, Heat stabilizer, Processing aids