VESTAMID® Terra HS18-GF30

Polyamide 610

Evonik Industries AG

Message:

Glass-fiber reinforced, medium viscosity polyamide 610.
VESTAMID® Terra HS18-GF30 is a glass-fiber reinforced, heat stabilized, medium viscosity PA 610 compound for injection molding application. The material contains about 30% glass fibers, an ageing protective agent and processing aid for a fast and even form filling.
The carbonamide groups (-CO-NH-) of the polyamides form hydrogen bridge bonds between the chains of the macromolecules, thereby substantially promoting crystallinity and increasing their strength, melting point, resistance to chemicals and even water absorption. This is characteristic of all semi-crystalline polyamides.
Because of its semi-crystalline morphology VESTAMID®Terra HS18-GF30 provides a high impact strength, excellent chemical resistance (e.g. against greases, oils, alkalis and saline solutions), a low coefficient of friction and high abrasion resistance.
Properties of VESTAMID® Terra HS18-GF30 vary little with changing humidity due to their low moisture absorption.
VESTAMID® Terra HS18-GF30 is supplied as cylindrical granules, ready for processing, in moisture-proof bags.
VESTAMID®Terra is a group of new polyamides, the monomers for which are based entirely or partly on renewable raw materials.
VESTAMID® Terra HS is the polycondensation product of 1,6-hexamethylene diamine (H) and 1,10-decanedioic acid (sebacic acid—S). Because sebacic acid is extracted from castor oil, VESTAMID® Terra HS is based on natural, renewable resources up to 62%.
Global Warming Potential (GWP) 4.6 kg CO2 by Evonik, PE International.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Heat Stabilizer Processing Aid		
Features	Good Abrasion Resistance High Impact Resistance Low Friction Low Moisture Absorption Medium Viscosity Renewable Resource Content Semi Crystalline		
Forms	Granules		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density (23°C)	1.32	g/cm³	ISO 1183
Water Absorption (Saturation, 23°C)	2.3	%	ISO 62
Viscosity Number	180	cm³/g	ISO 307
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	8300	MPa	ISO 527-2
Tensile Stress (Yield)	147	MPa	ISO 527-2
Tensile Strain			ISO 527-2
Yield	4.0	%	
Break	4.0	%	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	10	kJ/m²	
23°C, Complete Break	16	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	88	kJ/m²	
23°C	89	kJ/m²	
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature			
--	221	°C	ISO 306/A
--	217	°C	ISO 306/B
Melting Temperature [1]	222	°C	ISO 11357-3
Additional Information	Nominal Value	Unit	Test Method
Renewable Carbon Conent	62	%	ASTM D6866
NOTE			
1.	2nd Heating		

Recommended distributors for this material

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