Fibremod™ GB215HP

Polypropylene

Borealis AG

Message:

Nepol GB215HP is a 20 % long glass fibre reinforced polypropylene grade intended for injection moulding and extrusion. The long glass fibres, chemically coupled to the polypropylene matrix, are providing outstanding mechanical properties such as high strength, high stiffness and excellent impact behaviour.
Due to its excellent combination of properties this material can substitute in many applications other engineering plastics or metal alloys. A significant value of this material is the fact that it does not change its mechanical properties at humid conditions or water contact.
The product is available in standard black 9502.

General Information			
Filler / Reinforcement	Long glass fiber, 20% filler by weight		
Features	Rigidity, high High strength Impact resistance, high Thermal Stability		
Uses	Application in Automobile Field		
Appearance	Black		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.04	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	2.0	g/10 min	ISO 1133
Molding Shrinkage [1]			Internal method
Vertical flow direction: 2.00mm	0.55	%	Internal method
Flow direction: 2.00mm	0.10	%	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (Injection Molded)	5300	MPa	ISO 527-2/1
Tensile Stress (Break, Injection Molded)	105	MPa	ISO 527-2
Tensile Strain (Break, Injection Molded)	2.7	%	ISO 527-2
Flexural Modulus [2] (Injection Molded)	4550	MPa	ISO 178
Flexural Stress (Injection Molded)	130	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-20°C, injection molding	22	kJ/m²	ISO 179/1eA
23°C, injection molding	19	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-20°C, injection molding	32	kJ/m²	ISO 179/1eU
23°C, injection molding	57	kJ/m²	ISO 179/1eU
Notched Izod Impact			ISO 180/1A

-20°C, injection molding	21	kJ/m²	ISO 180/1A
23°C, injection molding	21	kJ/m²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	158	°C	ISO 75-2/A
Vicat Softening Temperature	125	°C	ISO 306/B
Melt Energy	72.5	kJ/kg	ISO 11357
Atomization-16 hr (100°C)	1.2	mg	DIN 75201
Emission	50.0	µgC/g	VDA 277
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	2.0	hr	
Processing (Melt) Temp	220 - 260	°C	
Mold Temperature	30.0 - 50.0	°C	
Holding Pressure	30.0 - 60.0	MPa	
Injection instructions			
Feeding Temperature: 40-80 °CBack Pressure: As low as possibleScrew Speed: Low to MediumFlow Front Speed: 100-200 mm/s			
NOTE			
1.	150x80x2 mm		
2.	2.0 mm/min		

Recommended distributors for this material

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WECHAT