

Fibremod™ GB205U

Compounded Polypropylene

Borealis AG

Message:

Fibremod GB205U is a 20% chemically coupled glass fibre reinforced polypropylene compound intended for injection moulding. The product is available in natural but other colours can be provided on request.

This material shows excellent mechanical properties also at elevated temperatures.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	Recyclable materials		
	Detergent resistance		
	Thermal stability, good		
Uses	Electrical appliances		
	Washer		
	Engineering application		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	2.2	g/10 min	ISO 1133
Molding Shrinkage ¹			Internal method
Vertical flow direction: 2.00mm	1.1	%	Internal method
Flow direction: 2.00mm	0.20	%	Internal method
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 132/10)	101	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (1.00 mm)	4800	MPa	ISO 527-2
Tensile Stress	75.0	MPa	ISO 527-2
Tensile Strain (Break)	4.0	%	ISO 527-2/50
Flexural Modulus ²	4400	MPa	ISO 178
Flexural Stress	115	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	7.0	kJ/m ²	ISO 179/1eA
-20°C	7.5	kJ/m ²	ISO 179/1eA
23°C	11	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-20°C	42	kJ/m ²	ISO 179/1eU

23°C	45	kJ/m ²	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-20°C	8.0	kJ/m ²	ISO 180/1A
23°C	10	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	154	°C	ISO 75-2/B
1.8 MPa, not annealed	140	°C	ISO 75-2/A
Vicat Softening Temperature			
--	160	°C	ISO 306/A
--	130	°C	ISO 306/B
Flammability	Nominal Value	Unit	Test Method
Fogging			DIN 75201
100°C ³	1.0	mg	DIN 75201
100°C ⁴	98.0	mg	DIN 75201
Emission	15.0	µgC/g	VDA 277
Injection	Nominal Value	Unit	
Mold Temperature	30.0 - 50.0	°C	
Holding Pressure	30.0 - 60.0	MPa	
Injection instructions			
Feeding Temperature: 40 - 80 °C Mass Temperature: 220 - 260 °C Back Pressure: Low to Medium Screw Speed: Low to Medium Flow Front Speed: 100 - 200 mm/s			
NOTE			
1.	150x80x2		
2.	2.0 mm/min		
3.	16 h		
4.	3 h		

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