Borealis PP GB366WG

Polypropylene

Borealis A/S

IDES | Prospector

Product Description

GB366WG is a 30% 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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Filler / Reinforcement	• Glass Fiber Reinforcement, 30% Filler by Weight		
Features	• Detergent Resistant	• Heat Stabilized	
Uses	• Industrial Applications	• Pump Parts	• Washer
Agency Ratings	• UL 94		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density	1.12	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	2.0	g/10 min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow: 2.00 mm [2]	1.1	%	
Flow: 2.00 mm [3]	0.20	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	6.90	MPa	ISO 527-2/1
Tensile Stress (Yield)	100	MPa	ISO 527-2
Tensile Strain (Break)	3.3	%	ISO 527-2/50
Flexural Modulus [4]	6.00	MPa	ISO 178
Flexural Strength	135	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-20°C	9.0	kJ/m²	
23°C	12	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-20°C	49	kJ/m²	
23°C	58	kJ/m²	
Notched Izod Impact Strength			ISO 180/1A
-20°C	8.50	kJ/m²	
23°C	11.0	kJ/m²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	112	MPa	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	159	°C	ISO 75-2/B
1.8 MPa, Unannealed	143	°C	ISO 75-2/A
Vicat Softening Temperature			
--	164	°C	ISO 306/A
--	135	°C	ISO 306/B

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0	hr
Processing (Melt) Temp	230 to 280	°C
Mold Temperature	30.0 to 50.0	°C
Holding Pressure	30.0 to 60.0	MPa

Revision History
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Injection Notes

Feeding Temperature: 40-80 °C
Back Pressure: Low to Medium
Screw Speed: Low to Medium
Flow Front Speed: 100-200 mm/s

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 150x80x2 mm

[3] 150x80x2 MM

[4] 2.0 mm/min

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