

Borcom™ WG140AI

Polypropylene

Borealis AG

Message:

Borcom WG140AI is a polypropylene microcomposite intended for injection moulding.

This material has an excellent balance between impact strength and stiffness, high melt flow rate and gives a good surface quality.

General Information			
UL YellowCard	E108112-484532		
Additive	heat stabilizer		
Features	Rigid, good		
	Impact resistance, good		
	Recyclable materials		
	Thermal Stability		
	Excellent appearance		
Uses	Shell		
Appearance	Natural color		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.980	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	20	g/10 min	ISO 1133
Molding Shrinkage	1.3	%	Internal method
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	85.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	2600	MPa	ISO 527-2/1
Tensile Stress (Yield, Injection Molded)	37.0	MPa	ISO 527-2/50
Tensile Strain (Yield, Injection Molded)	4.0	%	ISO 527-2/50
Flexural Modulus (Injection Molded)	2500	MPa	ISO 178
Flexural Stress (Injection Molded)	50.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-20°C, injection molding	1.5	kJ/m ²	ISO 179/1eA
23°C, injection molding	3.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-20°C, injection molding	25	kJ/m ²	ISO 179/1eU
23°C, injection molding	70	kJ/m ²	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-20°C, injection molding	1.6	kJ/m ²	ISO 180/1A

23°C, injection molding	3.7	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-20°C, injection molding	16	kJ/m ²	ISO 180/1U
23°C, injection molding	46	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	120	°C	ISO 75-2/B
1.8 MPa, not annealed	64.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	155	°C	ISO 306/A50
--	94.0	°C	ISO 306/B50
Melt Energy	103	kJ/kg	ISO 11357
Fogging ¹ (100°C)	1.4	mg	DIN 75201
Emission	50.0	µgC/g	VDA 277
Injection	Nominal Value	Unit	
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 to 80°C Back pressure: low to medium Screw speed: low to medium Flow front speed: 100 to 200 mm/s			
NOTE			
1.	16 hr		

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