

Borealis PP BHC5012C

Polypropylene Copolymer

Borealis AG

Message:

BHC5012C is a polypropylene copolymer intended for injection moulding, extrusion and blow moulding. This material has excellent balanced mechanical properties and is easy to process.

General Information	
Filler / Reinforcement	Copper filler
Features	Copolymer
	Workability, good
Uses	Parts under the hood of a car
	Shell
Forms	Particle
Processing Method	Blow molding
	Extrusion
	Injection molding

Physical	Nominal Value	Unit	Test Method
Density	0.905	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.30	g/10 min	ISO 1133
Molding Shrinkage - Flow	1.9	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	1150	MPa	ISO 527-2/1
Tensile Stress (Yield, Injection Molded)	27.0	MPa	ISO 527-2/50
Tensile Strain (Yield, Injection Molded)	11	%	ISO 527-2/50
Flexural Modulus ¹ (Injection Molded)	1350	MPa	ISO 178
Flexural Stress (Injection Molded)	35.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, injection molding	3.8	kJ/m ²	ISO 179/1eA
-20°C, injection molding	4.5	kJ/m ²	ISO 179/1eA
23°C, injection molding	75	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-20°C, injection molding	No Break		ISO 179/1eU
23°C, injection molding	No Break		ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-20°C, injection molding	5.5	kJ/m ²	ISO 180/1A

23°C, injection molding	55	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	80.0	°C	ISO 75-2/B
1.8 MPa, not annealed	50.0	°C	ISO 75-2/A
Vicat Softening Temperature	65.0	°C	ISO 306/B50
Melt Energy	86.8	kJ/kg	ISO 11357
Emission - 30		µgC/g	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	2.0	hr	
Hopper Temperature	40.0 - 80.0	°C	
Processing (Melt) Temp	220 - 260	°C	
Mold Temperature	30.0 - 50.0	°C	
Holding Pressure	30.0 - 60.0	MPa	
Injection instructions			
Back pressure: Low to mediumScrew speed: Low to mediumFlow front speed: 100 - 200 mm/s			
NOTE			
1.	2.0 mm/min		

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