

# Borcom™ BG055AI

Polypropylene

Borealis AG

# PROSPECTOR®

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## Technical Data

### Product Description

Borcom BG055AI is a polypropylene microcomposite intended for injection and back injection moulding.

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

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E108112-320758</a>
Search for UL Yellow Card	• <a href="#">Borealis AG</a> • <a href="#">Borcom™</a>
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Heat Stabilizer
Features	• Good Impact Resistance • Good Stiffness • Good Surface Finish • Heat Stabilized • High Flow
Uses	• Automotive Applications • Automotive Interior Parts • Electrical/Electronic Applications • Household Goods • Housings
UL File Number	• E108112
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.920 g/cm <sup>3</sup>	0.920 g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
230°C/2.16 kg	22 g/10 min	22 g/10 min	
230°C/5.0 kg	96 g/10 min	96 g/10 min	
Molding Shrinkage (0.0787 in (2.00 mm))	1.5 %	1.5 %	Internal Method

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	290000 psi	2000 MPa	ISO 527-2/1
Tensile Stress (Yield)	5080 psi	35.0 MPa	ISO 527-2/50
Flexural Modulus <sup>4</sup>	268000 psi	1850 MPa	ISO 178
Flexural Stress	6530 psi	45.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-4°F (-20°C)	0.71 ft·lb/in <sup>2</sup>	1.5 kJ/m <sup>2</sup>	
73°F (23°C)	1.7 ft·lb/in <sup>2</sup>	3.5 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-4°F (-20°C)	14 ft·lb/in <sup>2</sup>	30 kJ/m <sup>2</sup>	
73°F (23°C)	49 ft·lb/in <sup>2</sup>	100 kJ/m <sup>2</sup>	
Notched Izod Impact Strength			ISO 180
-4°F (-20°C)	0.71 ft·lb/in <sup>2</sup>	1.5 kJ/m <sup>2</sup>	
73°F (23°C)	1.7 ft·lb/in <sup>2</sup>	3.5 kJ/m <sup>2</sup>	
Unnotched Izod Impact Strength			ISO 180
-4°F (-20°C)	8.6 ft·lb/in <sup>2</sup>	18 kJ/m <sup>2</sup>	
73°F (23°C)	29 ft·lb/in <sup>2</sup>	60 kJ/m <sup>2</sup>	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	13100 psi	90.0 MPa	ISO 2039-1



Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	226 °F	108 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	140 °F	60.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	313 °F	156 °C	ISO 306/A50
--	203 °F	95.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Fogging - 16 hrs (212°F (100°C))	1.1 mg	1.1 mg	DIN 75201
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Emission	< 30.0 µg/g	< 30.0 µg/g	VDA 277
Injection	Nominal Value (English)	Nominal Value (SI)	
Hopper Temperature	104 to 176 °F	40 to 80 °C	
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C	
Mold Temperature	86 to 122 °F	30 to 50 °C	
Holding Pressure	4350 to 8700 psi	30.0 to 60.0 MPa	

**Injection Notes**

Back pressure: Low to medium  
 Screw speed: Low to medium  
 Flow front speed: 100 - 200 mm/s

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 0.079 in/min (2.0 mm/min)



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**Where to Buy**

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**Supplier**

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**Borealis AG**

Vienna, Austria

**Telephone:** +43-122-400-302**Web:** <http://www.borealisgroup.com/>

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**Distributor**

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