

Lavanta® 5120 BK 368

High Performance Polyester

Solvay Specialty Polymers

Message:

Lavanta® HPP 5120 is a 20% glass fiber reinforced, high-performance polyester (HPP) injection molding grade developed specifically for HB LED packaging applications that utilize surface mount technology. Key performance properties include easy processing, high stiffness and low moisture absorption, giving it excellent reliability for LEDs used in outdoor displays.

-Black: 5120 BK368

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	Low hygroscopicity		
	Rigidity, high		
	Light stabilization		
	Fast molding cycle		
	Good chemical resistance		
Uses	LEDs		
	Electrical/Electronic Applications		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.39	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.50	%	ASTM D955
Transverse flow	1.4	%	ASTM D955
Water Absorption (24 hr)	0.057	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7280	MPa	ISO 527-2
Tensile Stress	101	MPa	ISO 527-2
Tensile Strain (Break)	1.8	%	ISO 527-2
Flexural Modulus	6360	MPa	ISO 178
Flexural Stress	164	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	4.2	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	274	°C	ISO 75-2/B

1.8 MPa, not annealed	241	°C	ISO 75-2/A
Linear thermal expansion coefficient			ASTM E831
Flow: 50 to 100°C	2.3E-5	cm/cm/°C	ASTM E831
Flow: 150 to 200°C	1.7E-5	cm/cm/°C	ASTM E831
Flow: 200 to 250°C	1.5E-5	cm/cm/°C	ASTM E831
Horizontal: 0 to 50°C	7.2E-5	cm/cm/°C	ASTM E831
Horizontal: 50 to 100°C	1.1E-4	cm/cm/°C	ASTM E831
Horizontal: 100 to 150°C	1.6E-4	cm/cm/°C	ASTM E831
Horizontal: 150 to 200°C	1.6E-4	cm/cm/°C	ASTM E831
Horizontal: 200 to 250°C	1.7E-4	cm/cm/°C	ASTM E831
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.030	%	
Rear Temperature	280 - 290	°C	
Front Temperature	300 - 310	°C	
Processing (Melt) Temp	300 - 320	°C	
Mold Temperature	120 - 150	°C	

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