Lavanta® 5120 BK 368

high performance polyester

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		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight	
Features	• Chemical Resistant • Fast Molding Cycle • High Stiffness	• Light Stabilized • Low Moisture Absorption
Uses	• Electrical/Electronic Applications	• LEDs
RoHS Compliance	• Contact Manufacturer	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.39		ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.50	%	
Across Flow	1.4	%	
Water Absorption (24 hr)	0.057	%	ASTM D570

Mechanical	Typical 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	Typical Value	Unit	Test method
Notched Izod Impact Strength	4.2	kJ/m²	ISO 180/1A

Thermal	Typical Value	Unit	Test method
Heat Deflection Temperature			
0.45 MPa, Unannealed	274	°C	ISO 75-2/B
1.8 MPa, Unannealed	241	°C	ISO 75-2/A

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Thermal	Typical Value	Unit	Test method
CLTE			ASTM E831
Flow : 50 to 100°C	2.3E-5	cm/cm/°C	
Flow : 150 to 200°C	1.7E-5	cm/cm/°C	
Flow : 200 to 250°C	1.5E-5	cm/cm/°C	
Transverse : 0 to 50°C	7.2E-5	cm/cm/°C	
Transverse : 50 to 100°C	1.1E-4	cm/cm/°C	
Transverse : 100 to 150°C	1.6E-4	cm/cm/°C	
Transverse : 150 to 200°C	1.6E-4	cm/cm/°C	
Transverse : 200 to 250°C	1.7E-4	cm/cm/°C	

Injection	Typical Value	Unit
Drying Temperature	120	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.030	%
Rear Temperature	280 to 290	°C
Front Temperature	300 to 310	°C
Processing (Melt) Temp	300 to 320	°C
Mold Temperature	120 to 150	°C

Notes

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

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