Technical Data Sheet

Lavanta® 5115

high performance polyester

Lavanta® 5115 is a 15% glass fiber reinforced, high-performance polyester (HPP) injection molding grade developed specifically for HB LED packaging applications that utilize surface mount technology.

Lavanta® 5115 has improved adhesion to silicone and higher initial reflectivity with excellent whiteness retention even after thermal and light aging and it retains its mechanical properties during the injection molding process. This gives it excellent reliability for LEDs that operate at higher junction temperatures in top- and side-view LEDs.

- White: 5515 WH 308

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight	
Features	• Chemical Resistant • Fast Molding Cycle • Good Color Stability • High Reflectivity	• High Stiffness • Light Stabilized • Low Moisture Absorption
Uses	• LEDs	
RoHS Compliance	• Contact Manufacturer	
Appearance	• White	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.61		ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.50	%	
Across Flow	1.1	%	
Water Absorption (24 hr)	0.057	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	7000	MPa	ISO 527-1
Tensile Strength	71.1	MPa	ISO 527-2
Tensile Strain (Break)	1.2	%	ISO 527-2
Flexural Modulus	6200	MPa	ISO 178
Flexural Stress	113	MPa	ISO 178

Impact	Typical Value	Unit	Test method
Notched Izod Impact Strength	2.2	kJ/m²	ISO 180/1A

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Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	266	°C	ISO 75-2/B
1.8 MPa, Unannealed	192	°C	ISO 75-2/A
Melting Temperature	285	°C	ISO 11357-3
CLTE			ASTM E831
Flow : 50 to 75°C	2.9E-5	cm/cm/°C	
Flow : 75 to 100°C	3.1E-5	cm/cm/°C	
Flow : 100 to 125°C	3.5E-5	cm/cm/°C	
Flow : 125 to 150°C	3.2E-5	cm/cm/°C	
Flow : 150 to 175°C	2.5E-5	cm/cm/°C	
Transverse : 50 to 75°C	6.5E-5	cm/cm/°C	
Transverse : 75 to 100°C	8.2E-5	cm/cm/°C	
Transverse : 100 to 125°C	1.2E-4	cm/cm/°C	
Transverse : 125 to 150°C	1.3E-4	cm/cm/°C	
Transverse : 150 to 175°C	1.3E-4	cm/cm/°C	

Additional Information	Typical Value	Unit	Test method
Optical Reflectivity			ASTM E1331
460 nm	> 94	%	
540 nm	> 93	%	
620 nm	> 93	%	

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	295 to 310	°C
Processing (Melt) Temp	295 to 310	°C
Mold Temperature	130 to 150	°C

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

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Progress beyond

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