

Infino EN-1052

Polycarbonate

SAMSUNG SDI CO., LTD.

Message:

Non-halogen flame-retardant material with high heat resistance that can be applied to battery charger

General Information			
UL YellowCard	E115797-503529		
Features	Flame Retardant		
	Halogen Free		
	High Heat Resistance		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/10.0 kg)	19	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage			ASTM D955
Flow : 3.20 mm	0.54 to 0.66	%	
Across Flow : 3.20 mm	0.56 to 0.69	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
R-Scale	118		ASTM D785
R-Scale	120		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1900	MPa	ASTM D638
--	2100	MPa	ISO 527-2/50
Tensile Strength			
Yield ²	52.0	MPa	ASTM D638
Yield	55.0	MPa	ISO 527-2/50
Break ³	61.0	MPa	ASTM D638
Break	67.0	MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	94	%	ASTM D638
Break	110	%	ISO 527-2/50
Flexural Modulus			
-- ⁵	2100	MPa	ASTM D790
-- ⁶	2100	MPa	ISO 178
Flexural Strength			
-- ⁷	75.0	MPa	ASTM D790

-- ⁸	80.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	70	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
23°C, 3.18 mm	710	J/m	ASTM D256
23°C, 6.35 mm	65	J/m	ASTM D256
23°C ¹⁰	61	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed, 4.00 mm	135	°C	ISO 75-2/B
0.45 MPa, Annealed	135	°C	ISO 75-2/B
1.8 MPa, Unannealed, 6.40 mm	129	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	121	°C	ISO 75-2/A
1.8 MPa, Annealed, 4.00 mm	123	°C	ISO 75-2/A
Vicat Softening Temperature			
--	140	°C	ISO 306/B50
--	145	°C	ISO 306/B120
RTI Elec (1.50 mm)	130	°C	UL 746
RTI Imp (1.50 mm)	130	°C	UL 746
RTI Str (1.50 mm)	130	°C	UL 746
Flammability	Nominal Value	Test Method	
Flame Rating			UL 94
0.750 mm	V-2		
1.50 mm	V-0		
3.00 mm	V-0		
Injection	Nominal Value	Unit	
Drying Temperature			
--	120	°C	
Desiccant Dryer	120	°C	
Drying Time			
--	2.0 to 6.0	hr	
Desiccant Dryer	2.0 to 4.0	hr	
Suggested Max Moisture	< 0.050	%	
Rear Temperature	240 to 250	°C	
Middle Temperature	260 to 270	°C	
Front Temperature	280 to 290	°C	
Nozzle Temperature	290 to 310	°C	
Mold Temperature	40.0 to 100	°C	
Injection Pressure	49.0 to 245	MPa	
Back Pressure	0.490 to 1.96	MPa	
Screw Speed	50 to 150	rpm	
NOTE			

1.	50 mm/min
2.	50 mm/min
3.	50 mm/min
4.	50 mm/min
5.	10 mm/min
6.	2.0 mm/min
7.	10 mm/min
8.	2.0 mm/min
9.	Thickness: 4 mm
10.	Thickness: 4 mm

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