

Infino CF-1051

Polycarbonate

SAMSUNG SDI CO., LTD.

Message:

High-impact material for the exterior material of mobile phone

General Information			
Features	High Impact Resistance		
Uses	Cell Phones		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238, ISO 1133
250°C/10.0 kg	22	g/10 min	
300°C/1.2 kg	12	g/10 min	
Molding Shrinkage			ASTM D955, ISO 2577
Flow : 3.20 mm	0.50	%	
Across Flow : 3.20 mm	0.50 to 0.60	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785, ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2000	MPa	ASTM D638
--	2000	MPa	ISO 527-2/50
Tensile Strength			
Yield ²	59.0	MPa	ASTM D638
Yield	60.0	MPa	ISO 527-2/50
Break ³	59.0	MPa	ASTM D638
Break	600	MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	100	%	ASTM D638
Break	2.0	%	ISO 527-2/50
Flexural Modulus			
-- ⁵	2000	MPa	ASTM D790
-- ⁶	2200	MPa	ISO 178
Flexural Strength			
-- ⁷	83.0	MPa	ASTM D790
-- ⁸	80.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	60	kJ/m ²	ISO 179/1eA
Notched Izod Impact			

23°C, 3.18 mm	690	J/m	ASTM D256
23°C, 6.35 mm	540	J/m	ASTM D256
23°C ¹⁰	50	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	135	°C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm	135	°C	ISO 75-2/B
1.8 MPa, Unannealed, 6.40 mm	129	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	129	°C	ISO 75-2/A
Vicat Softening Temperature	137	°C	ISO 306/B50
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
0.800 mm	V-2		
2.50 mm	V-2		
3.00 mm	V-2		
Injection	Nominal Value	Unit	
Drying Temperature			
--	100	°C	
Desiccant Dryer	100	°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.	2.8 mm/min		
6.	2.0 mm/min		
7.	2.8 mm/min		
8.	2.0 mm/min		
9.	Thickness: 4 mm		
10.	Thickness: 4 mm		

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