

LNP™ THERMOCOMP™ DX06313 compound

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

Polycarbonate base, 30% glass fiber reinforced, impact modified material. Thinwall housing, mobile phone. Some light color grades may have lower impact data than nature and black grade.

General Information			
UL YellowCard	E207780-101284061		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Impact Modifier		
Features	Impact Modified		
Uses	Electrical Housing		
	Thin-walled Parts		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.42	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
300°C/1.2 kg	4.6	g/10 min	
300°C/5.0 kg	42	g/10 min	
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	32.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.30 to 0.50	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	7500	MPa	ASTM D638
--	7420	MPa	ISO 527-2/1
Tensile Strength			
Break ²	99.0	MPa	ASTM D638
Break	90.0	MPa	ISO 527-2/5
Tensile Elongation			
Break ³	3.6	%	ASTM D638
Break	3.5	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁴	7000	MPa	ASTM D790
-- ⁵	6650	MPa	ISO 178
Flexural Stress			

--	170	MPa	ISO 178
Yield, 50.0 mm Span ⁶	170	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁷ (23°C)	16	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	120	J/m	ASTM D256
23°C, Light & White Colors	90	J/m	ASTM D256
23°C, Natural & Black Colors	190	J/m	ASTM D256
-30°C ⁸	12	kJ/m ²	ISO 180/1A
23°C ⁹	17	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	24.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	136	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁰	136	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	142	°C	ASTM D1525, ISO 306/B50 ¹¹
--	143	°C	ISO 306/B120
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	2.2E-5	cm/cm/°C	
Transverse : -40 to 40°C	6.8E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	293 to 316	°C	
Middle Temperature	304 to 327	°C	
Front Temperature	316 to 338	°C	
Nozzle Temperature	310 to 332	°C	
Processing (Melt) Temp	316 to 338	°C	
Mold Temperature	82.2 to 116	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	1.3 mm/min		

5.	2.0 mm/min
6.	1.3 mm/min
7.	80*10*4 sp=62mm
8.	80*10*4
9.	80*10*4
10.	80*10*4 mm
11.	Rate B (120°C/h), Loading 2 (50 N)

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