

LNP™ THERMOCOMP™ EXTC8270 compound

Polybutylene Terephthalate

SABIC Innovative Plastics Asia Pacific

Message:

40% glass fiber reinforced, high metal bonding strength, high flow, for NMT application

General Information			
Filler / Reinforcement	Glass Fiber,40% Filler by Weight		
Features	High Flow		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.61	g/cm ³	ASTM D792
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/5.0 kg	7.00	cm ³ /10min	
275°C/5.0 kg	11.0	cm ³ /10min	
Molding Shrinkage			Internal Method
Flow	0.27	%	
Across Flow	0.80	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	10600	MPa	ASTM D638
--	11000	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	126	MPa	ASTM D638
Yield	131	MPa	ISO 527-2/5
Break ³	126	MPa	ASTM D638
Break	131	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638
Yield	2.9	%	ISO 527-2/5
Break ⁵	3.0	%	ASTM D638
Break	2.9	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	9200	MPa	ASTM D790
-- ⁷	9700	MPa	ISO 178
Flexural Stress			
--	208	MPa	ISO 178
Break, 50.0 mm Span ⁸	194	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/2C

-30°C	13	kJ/m ²	
23°C	14	kJ/m ²	
Charpy Unnotched Impact Strength (23°C)	85	kJ/m ²	ISO 179/2U
Notched Izod Impact			
-30°C	130	J/m	ASTM D256
23°C	140	J/m	ASTM D256
-30°C ⁹	13	kJ/m ²	ISO 180/1A
23°C ¹⁰	14	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	1100	J/m	ASTM D4812
23°C ¹¹	69	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	207	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	209	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	203	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	205	°C	ASTM D1525 ¹³
--	203	°C	ISO 306/B50
CLTE			
Flow : -40 to 40°C	1.0E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	1.4E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	1.8E-5	cm/cm/°C	ISO 11359-2
Flow : 23 to 80°C	1.1E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	8.9E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	1.2E-4	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	9.2E-5	cm/cm/°C	ISO 11359-2
Transverse : 23 to 80°C	1.5E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.2E+15	ohms · cm	ASTM D257
Dielectric Constant			Internal Method
1.10 GHz	3.65		
1.90 GHz	3.72		
Dissipation Factor			Internal Method
1.10 GHz	0.013		
1.90 GHz	0.012		
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 80	%	

Rear Temperature	243 to 266	°C
Middle Temperature	249 to 271	°C
Front Temperature	254 to 277	°C
Nozzle Temperature	249 to 271	°C
Processing (Melt) Temp	254 to 277	°C
Mold Temperature	65.6 to 87.8	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	50 to 80	rpm
Vent Depth	0.025 to 0.038	mm

NOTE

1.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4
10.	80*10*4
11.	80*10*4
12.	80*10*4 mm
13.	Rate B (120°C/h), Loading 2 (50 N)

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