

LNP™ THERMOCOMP™ GF003 compound

Polysulfone

SABIC Innovative Plastics

Message:

LNP THERMOCOMP* GF003 is a compound based on Polysulfone resin containing 15% Glass Fiber.

Also known as: LNP* Thermocomp* Compound GF-1003

Product reorder name: GF003

General Information			
Filler / Reinforcement	Glass Fiber,15% Filler by Weight		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.36	g/cm ³	ASTM D792
--	1.35	g/cm ³	ISO 1183, ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.40 to 0.60	%	
Across Flow : 24 hr	0.50 to 0.70	%	
Water Absorption			
24 hr, 50% RH	0.21	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.34	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	5490	MPa	ASTM D638
--	5430	MPa	ISO 527-2/1
Tensile Strength			
Break ²	86.0	MPa	ASTM D638
Break	86.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ³	2.9	%	ASTM D638
Yield	2.9	%	ISO 527-2/5
Break ⁴	3.1	%	ASTM D638
Break	3.1	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁵	4720	MPa	ASTM D790
-- ⁶	4710	MPa	ISO 178
Flexural Strength ⁷ (Break, 50.0 mm Span)	146	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	45	J/m	ASTM D256
23°C ⁸	4.9	kJ/m ²	ISO 180/1A

Unnotched Izod Impact			
23°C	550	J/m	ASTM D4812
23°C ⁹	37	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	14.6	J	ASTM D3763
--	3.90	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	184	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	185	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	178	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	179	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	3.2E-5	cm/cm/°C	
Transverse : -30 to 30°C	5.5E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	121 to 149	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050	%	
Rear Temperature	327 to 338	°C	
Middle Temperature	338 to 349	°C	
Front Temperature	349 to 360	°C	
Processing (Melt) Temp	360 to 371	°C	
Mold Temperature	149	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	50 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	1.3 mm/min		
6.	2.0 mm/min		
7.	1.3 mm/min		
8.	80*10*4		
9.	80*10*4		
10.	80*10*4 mm		
11.	80*10*4 mm		

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