

LNP™ THERMOCOMP™ WC006 compound

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

LNP THERMOCOMP WC006 is a compound based on Polyester, TP resin containing Carbon Fiber.

Also known as: LNP* THERMOCOMP* Compound WC-1006

Product reorder name: WC006

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.43	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow: 24 hours	0.10 - 0.30	%	ASTM D955
Transverse flow: 24 hours	1.0 - 2.0	%	ASTM D955
Vertical flow direction: 24 hours	1.2	%	ISO 294-4
Flow direction: 24 hours	0.23	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	20000	MPa	ASTM D638
--	20700	MPa	ISO 527-2/1
Tensile Strength			
Yield	159	MPa	ASTM D638
Yield	158	MPa	ISO 527-2
Fracture	159	MPa	ASTM D638
Fracture	158	MPa	ISO 527-2
Tensile Elongation			
Yield	1.2	%	ASTM D638
Yield	1.3	%	ISO 527-2
Fracture	1.2	%	ASTM D638, ISO 527-2
Flexural Modulus			
--	15200	MPa	ASTM D790
--	17000	MPa	ISO 178
Flexural Strength			
--	207	MPa	ASTM D790
--	219	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	43	J/m	ASTM D256
23°C ²	4.6	kJ/m ²	ISO 180/1A

Unnotched Izod Impact			
23°C	460	J/m	ASTM D4812
23°C ³	29	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	8.40	J	ASTM D3763
--	2.40	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	223	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ⁴	223	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	211	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ⁵	209	°C	ISO 75-2/Af
Linear thermal expansion coefficient			
Flow: -40 to 40°C	6.8E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	1.3E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	1.2E-5	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050	%	
Rear Temperature	221 - 232	°C	
Middle Temperature	243 - 254	°C	
Front Temperature	260 - 271	°C	
Processing (Melt) Temp	238 - 266	°C	
Mold Temperature	82.2 - 98.9	°C	
Back Pressure	0.172 - 0.344	MPa	
Screw Speed	30 - 60	rpm	
NOTE			
1.	50 mm/min		
2.	80*10*4		
3.	80*10*4		
4.	80*10*4 mm		
5.	80*10*4 mm		

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