

LNP™ THERMOCOMP™ QC006 compound

Polyamide 610

SABIC Innovative Plastics

Message:

LNP THERMOCOMP* QC006 is a compound based on Nylon 6/10 resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive.

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

Product reorder name: QC006

General Information			
Filler / Reinforcement	Carbon Fiber,30% Filler by Weight		
Features	Electrically Conductive		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
--	1.20	g/cm ³	
--	1.24	g/cm ³	
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.10 to 0.30	%	
Across Flow : 24 hr	0.80 to 1.0	%	
Water Absorption			
24 hr, 50% RH	0.20	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.30	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	23000	MPa	ISO 527-2/1
Tensile Strength			
Break ¹	214	MPa	ASTM D638
Break	243	MPa	ISO 527-2/5
Tensile Elongation			
Break ²	3.0	%	ASTM D638
Break	2.2	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ³	16100	MPa	ASTM D790
-- ⁴	18800	MPa	ISO 178
Flexural Stress			
--	349	MPa	ISO 178
Yield, 50.0 mm Span ⁵	326	MPa	ASTM D790
Break, 50.0 mm Span ⁶	325	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	100	J/m	ASTM D256

23°C ⁷	12	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	920	J/m	ASTM D4812
23°C ⁸	59	kJ/m ²	ISO 180/1U
Multi-Axial Instrumented Impact Energy	4.00	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	220	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁹	221	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	211	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁰	213	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	1.2E-5	cm/cm/°C	
Transverse : -30 to 30°C	5.5E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.12 to 0.20	%	
Rear Temperature	249 to 260	°C	
Middle Temperature	260 to 271	°C	
Front Temperature	271 to 282	°C	
Processing (Melt) Temp	271 to 277	°C	
Mold Temperature	82.2 to 93.3	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	Type I, 5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	1.3 mm/min		
4.	2.0 mm/min		
5.	1.3 mm/min		
6.	1.3 mm/min		
7.	80*10*4		
8.	80*10*4		
9.	80*10*4 mm		
10.	80*10*4 mm		

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