

LNP™ THERMOCOMP™ EC008APQ

compound

Polyether Imide

SABIC Innovative Plastics

Message:

LNP THERMOCOMP EC008APQ is a compound based on Polyetherimide containing 40% Carbon Fiber. Added features of this material include: Electrically Conductive, High Flow.

Also known as: LNP* THERMOCOMP* Compound EC008APQ

Product reorder name: EC008APQ

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 40% filler by weight		
Features	Conductivity		
	High liquidity		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
--	1.44	g/cm ³	ASTM D792
--	1.43	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/6.7 kg)	40	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow: 24 hours	0.010 - 0.050	%	ASTM D955
Transverse flow: 24 hours	0.10 - 0.50	%	ASTM D955
Water Absorption (24 hr, 50% RH)	0.11	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	112		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	39400	MPa	ASTM D638
--	35500	MPa	ISO 527-2/1
Tensile Strength			
Fracture ²	268	MPa	ASTM D638
Fracture	247	MPa	ISO 527-2/5
Tensile Elongation			
Fracture ³	1.0	%	ASTM D638
Fracture	0.90	%	ISO 527-2/5
Flexural Modulus			
50.0mm span ⁴	31300	MPa	ASTM D790
-- ⁵	30600	MPa	ISO 178

Flexural Stress			
--	364	MPa	ISO 178
Fracture, 50.0mm span ⁶	356	MPa	ASTM D790
Compressive Strength	218	MPa	Internal method
Shear Modulus	4660	MPa	ASTM C273
Shear Strength	120	MPa	ASTM C273
Poisson's Ratio	0.44		ASTM D638
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	64	J/m	ASTM D256
23°C ⁷	6.9	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	560	J/m	ASTM D4812
23°C ⁸	34	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	7.30	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	193	°C	ASTM D648
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 150°C	3.0E-6	cm/cm/°C	ASTM E831
Lateral: -40 to 150°C	4.0E-5	cm/cm/°C	ASTM E831
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	4.5E+2	ohms	ASTM D257
Volume Resistivity	4.1E+3	ohms · cm	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	120 - 150	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	380 - 400	°C	
Middle Temperature	380 - 400	°C	
Front Temperature	380 - 400	°C	
Processing (Melt) Temp	380 - 400	°C	
Mold Temperature	165 - 180	°C	
Back Pressure	0.300 - 0.700	MPa	
Screw Speed	50 - 100	rpm	
Injection instructions			
Injection Speed: 40 - 70 mm/s			
NOTE			
1.	5.0 mm/min		
2.	Type 1, 5.0 mm/min		
3.	Type 1, 5.0 mm/min		
4.	1.3 mm/min		

5.	2.0 mm/min
6.	1.3 mm/min
7.	80*10*4
8.	80*10*4

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

