LNP™ THERMOCOMP™ EC005 compound

Polyether Imide

SABIC Innovative Plastics

Message:

LNP THERMOCOMP* EC005 is a compound based on Polyetherimide resin containing Carbon Fiber. Added features of this material include: Electrically Conductive.
Also known as: LNP* THERMOCOMP* Compound EC-1005
Product reorder name: EC005

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Features	Conductivity		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.37	g/cm³	ASTM D792
--	1.36	g/cm³	ISO 1183
Molding Shrinkage			
Flow: 24 hours	0.10 - 0.30	%	ASTM D955
Transverse flow: 24 hours	0.30 - 0.50	%	ASTM D955
Vertical flow direction: 24 hours	0.30 - 0.50	%	ISO 294-4
Flow direction: 24 hours	0.10 - 0.30	%	ISO 294-4
Water Absorption			
24 hr, 50% RH	0.16	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.23	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	12300	MPa	ASTM D638
--	11700	MPa	ISO 527-2/1
Tensile Strength			
Fracture	200	MPa	ASTM D638
Fracture	194	MPa	ISO 527-2
Tensile Elongation (Break)	2.1	%	ASTM D638, ISO 527-2
Flexural Modulus			
--	14300	MPa	ASTM D790
--	15000	MPa	ISO 178
Flexural Strength			
--	278	MPa	ASTM D790
--	277	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			

23°C	53	J/m	ASTM D256
23°C [2]	6.4	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	450	J/m	ASTM D4812
23°C [3]	30	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	10.4	J	ASTM D3763
--	7.14	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, unannealed, 3.20mm	207	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span [4]	206	°C	ISO 75-2/Af
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	1.9E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	2.7E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+2 - 1.0E+5	ohms	ASTM D257
Volume Resistivity	1.0E+2 - 1.0E+6	ohms·cm	ASTM D257
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121 - 149	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	343 - 354	°C	
Middle Temperature	354 - 366	°C	
Front Temperature	366 - 377	°C	
Processing (Melt) Temp	360 - 366	°C	
Mold Temperature	121 - 149	°C	
Back Pressure	0.344 - 0.689	MPa	
Screw Speed	60 - 100	rpm	
NOTE			
1.	50 mm/min		
2.	80*10*4		
3.	80*10*4		
4.	80*10*4 mm		

Recommended distributors for this material

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