

LNP™ THERMOCOMP™ LC003E compound

Polyetheretherketone
SABIC Innovative Plastics

Message:

LNP THERMOCOMP* LC003E is a compound based on Polyetheretherketone resin containing 15% Carbon Fiber. Added features of this material include:
Easy Molding, Electrically Conductive
Also known as: LNP* THERMOCOMP* Compound LC-1003 EM
Product reorder name: LC003E

General Information			
Filler / Reinforcement	Carbon Fiber,15% Filler by Weight		
Features	Electrically Conductive		
	Good Moldability		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.33	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow : 24 hr	0.20 to 0.30	%	ASTM D955
Across Flow : 24 hr	0.50 to 0.60	%	ASTM D955
Across Flow : 24 hr	0.51 to 0.58	%	ISO 294-4
Flow : 24 hr	0.28 to 0.31	%	ISO 294-4
Water Absorption			
24 hr, 50% RH	0.070	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.13	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	11500	MPa	ASTM D638
--	10500	MPa	ISO 527-2/1
Tensile Strength			
Break	154	MPa	ASTM D638
Break	163	MPa	ISO 527-2
Tensile Elongation (Break)	1.8	%	ASTM D638, ISO 527-2
Flexural Modulus			
--	9510	MPa	ASTM D790
--	9850	MPa	ISO 178
Flexural Strength			
--	259	MPa	ASTM D790
--	263	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			

23°C	37	J/m	ASTM D256
23°C ²	4.3	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	400	J/m	ASTM D4812
23°C ³	29	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	4.40	J	ASTM D3763
--	1.80	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	270	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁴	298	°C	ISO 75-2/Af
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	5.2E-5	cm/cm/°C	
Transverse : -40 to 40°C	5.4E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3 to 1.0E+7	ohms	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	4.0 to 6.0	hr	
Rear Temperature	370 to 380	°C	
Middle Temperature	380 to 400	°C	
Front Temperature	380 to 400	°C	
Mold Temperature	175 to 190	°C	
Back Pressure	0.300 to 0.700	MPa	
Screw Speed	60 to 100	rpm	
NOTE			
1.	50 mm/min		
2.	80*10*4		
3.	80*10*4		
4.	80*10*4 mm		

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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



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