LNP™ THERMOCOMP™ RC006 compound

Polyamide 66

SABIC Innovative Plastics

Message:

LNP THERMOCOMP RC006 is a compound based on PA6.6 resin containing Carbon Fiber. Added features include: Electrically Conductive.
Also known as: LNP* THERMOCOMP* Compound RC-1006
Product reorder name: RC006

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Features	Conductivity		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.26	g/cm³	ISO 1183
Molding Shrinkage - Flow			Internal method
--	0.050 - 1.0	%	Internal method
-- [1]	0.040 - 0.080	%	Internal method
Water Absorption			ISO 62
23°C, 24 hr	1.1	%	ISO 62
Saturated, 23°C	4.5	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (L-Scale)	108		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	22000	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/5
Yield	261	MPa	ISO 527-2/5
Fracture	250	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus [2]	18900	MPa	ISO 178
Flexural Stress	360	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength [3] (23°C)	70	kJ/m²	ISO 179/1eU
Notched Izod Impact [4]			ISO 180/1A
-40°C	6.0	kJ/m²	ISO 180/1A
-20°C	7.0	kJ/m²	ISO 180/1A
23°C	10	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength [5] (23°C)	65	kJ/m²	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			

0.45 MPa, unannealed, 100 mm span [6]	260	°C	ISO 75-2/Be
0.45 MPa, unannealed, 64.0mm span [7]	261	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 100 mm span [8]	257	°C	ISO 75-2/Ae
1.8 MPa, unannealed, 64.0mm span [9]	252	°C	ISO 75-2/Af
Vicat Softening Temperature	255	°C	ISO 306/B120
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 60°C	8.0E-6	cm/cm/°C	ISO 11359-2
Lateral: 23 to 60°C	8.6E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity			
--	1.0E+2 - 1.0E+4	ohms	ASTM D257
--	4.3E+3	ohms	IEC 60093
Volume Resistivity	4.3E+3	ohms·cm	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.60 mm, Testing by SABIC)	HB		UL 94
Oxygen Index	27	%	ISO 4589-2
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.15 - 0.25	%	
Rear Temperature	266 - 277	°C	
Middle Temperature	282 - 293	°C	
Front Temperature	293 - 304	°C	
Processing (Melt) Temp	282 - 304	°C	
Mold Temperature	93.3 - 110	°C	
Back Pressure	0.172 - 0.344	MPa	
Screw Speed	30 - 60	rpm	

NOTE	
1.	Tensile Bar
2.	2.0 mm/min
3.	80*10*4 sp=62mm
4.	80*10*4
5.	80*10*4
6.	120*10*4 mm
7.	80*10*4 mm
8.	120*10*4 mm
9.	80*10*4 mm

Recommended distributors for this material

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