

LNP™ THERMOCOMP™ RC003 compound

Polyamide 66

SABIC Innovative Plastics Europe

Message:

15% carbon fibre reinforced Polyamide 66 injection moulding resin.

Also known as: LNP* THERMOCOMP* Compound RC1003

Product reorder name: RC003

General Information			
Filler / Reinforcement	Carbon Fiber, 15% Filler by Weight		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm ³	ISO 1183
Molding Shrinkage - Flow ¹	0.10 to 0.20	%	Internal Method
Water Absorption (Saturation, 23°C)	5.5	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	105		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	13000	MPa	ISO 527-2/1
Tensile Stress (Break)	170	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus ²	10000	MPa	ISO 178
Flexural Stress	230	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength ³ (23°C)	45	kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength ⁴			ISO 180/1A
-40°C	3.0	kJ/m ²	
-20°C	4.0	kJ/m ²	
23°C	5.0	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, Unannealed, 100 mm Span	252	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	250	°C	ISO 75-2/Ae
Vicat Softening Temperature	255	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow : 23 to 60°C	2.0E-5	cm/cm/°C	
Transverse : 23 to 60°C	1.1E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.8E+5	ohms	IEC 60093

Volume Resistivity	1.8E+5	ohms·cm	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.60 mm, Testing by SABIC)	HB		UL 94
Oxygen Index	28	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	75.0 to 85.0	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	0.20	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	270 to 290	°C	
Middle Temperature	260 to 280	°C	
Front Temperature	260 to 280	°C	
Nozzle Temperature	250 to 270	°C	
Processing (Melt) Temp	260 to 290	°C	
Mold Temperature	70.0 to 120	°C	

NOTE

1. Tensile Bar
2. 2.0 mm/min
3. 80*10*4 sp=62mm
4. 80*10*4
5. 120*10*4 mm

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