

LNP* Thermocomp* RC003

Polyamide 66

SABIC Innovative Plastics Europe



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Technical Data

Product Description

15% carbon fibre reinforced Polyamide 66 injection moulding resin.

Also known as: LNP* Thermocomp* Compound RC1003

Product reorder name: RC003

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
Search for UL Yellow Card	• SABIC Innovative Plastics Europe • LNP* Thermocomp*
Availability	• Europe
Filler / Reinforcement	• Carbon Fiber Reinforcement, 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 ³	0.10 to 0.20 %	Internal Method
Water Absorption (Saturation, 23°C)	5.5 %	ISO 62

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 ⁴	10000 MPa	ISO 178
Flexural Strength ^{4, 5}	230 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Unnotched Impact Strength ⁶ (23°C)	45 kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength ⁷		ISO 180/1A
-40°C	3.0 kJ/m ²	
-20°C	4.0 kJ/m ²	
23°C	5.0 kJ/m ²	

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (L-Scale)	105	ISO 2039-2

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature ⁸		
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	0.000020 cm/cm/°C	
Transverse: 23 to 60°C	0.00011 cm/cm/°C	

Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.8E+5 ohm	IEC 60093
Volume Resistivity	1.8E+5 ohm·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

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Injection	Nominal Value Unit
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

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ Tensile Bar

⁴ 2.0 mm/min

⁵ Break

⁶ 80*10*4 sp=62mm

⁷ 80*10*4

⁸ 120*10*4 mm

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Where to Buy

Supplier

SABIC Innovative Plastics Europe

, Netherlands

Telephone: +36-1-238-5060

Web: <http://www.sabic-ip.com/>

Distributor

Polymix

Telephone: +33-3-8920-1380

Web: <http://www.polymix.eu/>

Availability: France

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: Europe



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– Kevin Chase, Owner & President, Chase Plastics



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