

LNP™ THERMOCOMP™ Compound RC003

Polyamide 66

SABIC

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

LNP THERMOCOMP RC003 compound is based on Nylon 6/6 resin containing 15% carbon fiber. Added features of this grade include: Electrically Conductive.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Literature ¹	<ul style="list-style-type: none"> Drones SABIC Material Solutions For Conveyor Systems SABIC Material Solutions for Home Appliances SABIC Material Solutions for Industrial Impellers SABIC-MOBILITY-ADAS CAMERA FLYER SABIC-MOBILITY-ADAS LIDAR FLYER
Search for UL Yellow Card	<ul style="list-style-type: none"> SABIC LNP™ THERMOCOMP™ Compound
Availability	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe Latin America North America
Filler / Reinforcement	<ul style="list-style-type: none"> Carbon Fiber, 15% Filler by Weight
Features	<ul style="list-style-type: none"> Electrically Conductive High Stiffness High Strength
Uses	<ul style="list-style-type: none"> Electrical Parts Electronic Displays Industrial Applications Material Handling Structural Parts
Processing Method	<ul style="list-style-type: none"> 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 527-1/1
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 Stress ^{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
Deflection Temperature Under Load ⁸		
0.45 MPa, Unannealed, 4.00 mm, 100 mm Span	252 °C	ISO 75-2/Be
1.8 MPa, Unannealed, 4.00 mm, 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



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Flammability	Nominal Value Unit	Test Method
Flame Rating ⁹ (1.6 mm)	HB	UL 94
Oxygen Index	28 %	ISO 4589-2

Injection	Nominal Value Unit
Drying Temperature	75 to 85 °C
Drying Time	4.0 to 6.0 hr
Suggested Max Moisture	0.20 %
Hopper Temperature	60 to 80 °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 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 at Break

⁶ 80*10*4 sp=62mm

⁷ 80*10*4 mm

⁸ 120*10*4 mm

⁹ UL rating shown here is based on internal measurements.



Where to Buy

Supplier

SABICWeb: <http://www.sabic.com/>

Distributor

AECTRA

Telephone: +33-4-72-54-36-42

Web: <https://www.aectra.fr/>

Availability: Bulgaria, Romania

AGI-Augusto Guimarães & Irmão

Telephone: +351-22753-7400

Web: <https://www.agi.pt/en/>

Availability: Portugal

Amco Polymers

Telephone: 800-262-6685

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

Availability: North America

Chase Plastic Services, Inc.*Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here: <http://www.chaseplastics.com/contact/locations>*

Telephone: 800-232-4273

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

Availability: North America

GRÄSSLIN

Telephone: +49-7721-4040-261

Web: <https://www.graesslin-kunststoffe.de>

Availability: Germany

Guzmán Polymers

Telephone: +34-963-992-400

Web: <https://www.guzmanglobal.com/en/productos/plastics/>

Availability: Italy, Spain, Turkey

Lenorplastics

Telephone: +41-61-706-11-11

Web: <https://www.lenorplastics.ch>

Availability: Switzerland

Nexeo Plastics*Nexeo Plastics is leading global resin distributor with the technical resources you need to overcome material challenges. Visit us on the web at www.nexeoplastics.com.*

Telephone: 833-446-3936

Web: <https://www.nexeoplastics.com/>

Availability: North America

Plastoplan

Telephone: +43-1-25040-0

Web: <https://www.plastoplan.com/>

Availability: Austria, Czech Republic, Hungary, Slovakia

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

Telephone: +33-3-8920-1380

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

Availability: France

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: Belgium, Netherlands

