

LNP* Thermocomp* RC006XXH

Polyamide 66

SABIC Innovative Plastics



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Technical Data

Product Description

LNP* Thermocomp* RC006XXH is a compound based on Nylon 66 resin containing Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare.

Also known as: LNP* Thermocomp* Compound RC-1006 HC
Product reorder name: RC006XXH

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
Search for UL Yellow Card	• SABIC Innovative Plastics • LNP* Thermocomp*
Availability	• North America
Filler / Reinforcement	• Carbon Fiber Reinforcement
Features	• Electrically Conductive
Uses	• Medical/Healthcare Applications
Processing Method	• Injection Molding

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.27 g/cm ³	ASTM D792
Molding Shrinkage		ASTM D955
Flow: 24 hr	0.10 to 0.30 %	
Across Flow: 24 hr	0.60 to 0.80 %	
Water Absorption		
24 hr, 50% RH	0.70 %	ASTM D570
Equilibrium, 23°C, 50% RH	1.0 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- ³	25200 MPa	ASTM D638
--	24800 MPa	ISO 527-2/1
Tensile Strength		
Break ⁴	269 MPa	ASTM D638
Break	267 MPa	ISO 527-2/5
Tensile Elongation		
Break ⁴	2.1 %	ASTM D638
Break	2.1 %	ISO 527-2/5
Flexural Modulus		
50.0 mm Span ⁵	20300 MPa	ASTM D790
-- ⁶	19000 MPa	ISO 178
Flexural Strength		
--	364 MPa	ISO 178
Break, 50.0 mm Span ⁵	382 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact		
23°C	100 J/m	ASTM D256
23°C ⁷	11 kJ/m ²	ISO 180/1A
Unnotched Izod Impact		
23°C	1100 J/m	ASTM D4812
23°C ⁷	64 kJ/m ²	ISO 180/1U

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Impact	Nominal Value Unit	Test Method
Instrumented Dart Impact		
23°C, Total Energy	7.60 J	ASTM D3763
--	2.90 J	ISO 6603-2
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed, 3.20 mm	262 °C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁸	261 °C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	257 °C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁸	257 °C	ISO 75-2/Af
CLTE		ASTM D696
Flow: -30 to 30°C	0.000015 cm/cm/°C	
Transverse: -30 to 30°C	0.000063 cm/cm/°C	
Injection	Nominal Value Unit	
Drying Temperature	82.2 °C	
Drying Time	4.0 hr	
Suggested Max Moisture	0.15 to 0.25 %	
Rear Temperature	266 to 277 °C	
Middle Temperature	282 to 293 °C	
Front Temperature	293 to 304 °C	
Processing (Melt) Temp	282 to 304 °C	
Mold Temperature	93.3 to 110 °C	
Back Pressure	0.172 to 0.344 MPa	
Screw Speed	30 to 60 rpm	

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 5.0 mm/min

⁴ Type I, 5.0 mm/min

⁵ 1.3 mm/min

⁶ 2.0 mm/min

⁷ 80*10*4

⁸ 80*10*4 mm

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Where to Buy

Supplier

SABIC Innovative Plastics

Pittsfield, MA USA

Telephone: 800-845-0600

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

Distributor

Nexeo Solutions

Telephone: 800-531-7106

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

Availability: North America



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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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