

LNPT[™] THERMOCOMP[™] COMPOUND QC008XXP

DESCRIPTION

LNP THERMOCOMP QC008XXP compound is based on Nylon resin containing 40% carbon fiber. Added features of this grade include: Electrically Conductive, High Stiffness/Strength.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber
Polymer Types	Polyamide, Unspecified (Nylon, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Electrical, Industrial General

TYPICAL PROPERTY VALUES

Revision 20260724

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 50 mm/min	295	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	38300	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	500	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	32800	MPa	ASTM D790
Tensile Stress, break, 50 mm/min	330	MPa	ISO 527
Tensile Strain, break, 50 mm/min	2.47	%	ISO 527
Tensile Modulus, 1 mm/min	40800	MPa	ISO 527
Flexural Strength, 2 mm/min	470	MPa	ISO 178
Flexural Modulus, 2 mm/min	30100	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	100	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1400	J/m	ASTM D4812
Izod Impact, notched 80*10*3 +23°C	9.6	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*3 +23°C	80	kJ/m ²	ISO 180/1U
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	228	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	215	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	229	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	214	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.34	-	ASTM D792
Melt Flow Rate, 300°C/5.0 kgf	10	g/10 min	ASTM D1238

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Water Absorption, (23°C/24hrs)	0.15	%	ISO 62-1
Mold Shrinkage, flow ⁽²⁾	0.2 – 0.4	%	SABIC method
Mold Shrinkage, xflow ⁽²⁾	0.4 – 0.6	%	SABIC method
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80 – 90	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.2 – 0.4	%	
Melt Temperature	280 – 300	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	280 – 300	°C	
Rear - Zone 1 Temperature	270 – 290	°C	
Nozzle Temperature	280 – 300	°C	
Mold Temperature	70 – 120	°C	
Back Pressure	0.2 – 0.5	MPa	
Screw Speed	40 – 70	rpm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.