

LNPTM VERTONTM COMPOUND RX09003

RX09003

DESCRIPTION

LNP VERTON RX09003 is a compound based on Polyamide 66 (Nylon 66) resin containing 50% long glass fiber and proprietary fillers. Added features include Easy Molding and Structural.

GENERAL INFORMATION	
Features	Good Processability, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber, Proprietary Filler
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Exteriors
Building and Construction	Building Component
Consumer	Sport/Leisure, Home Appliances, Commercial Appliance
Industrial	Electrical, Industrial General

TYPICAL PROPERTY VALUES

Revision 20231109

MECHANICAL MECHANICAL Tensile Stress, break, 5 mm/min 268 MPa ISO 527 Tensile Strain, break, 5 mm/min 3.2 % ISO 527 Tensile Modulus, 1 mm/min 17200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 406 MPa ISO 178 Flexural Stress, break, 2 mm/min 395 MPa ISO 178 Flexural Strain, break, 2 mm/min 3.3 % ISO 178 Flexural Modulus, 2 mm/min 14600 MPa ISO 178 IMPACT (1) Izod Impact, unnotched 80*10*4 +23°C 100 kI/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1) TCE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 263 °C ISO 75/Bf	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tensile Strain, break, 5 mm/min 3.2 % ISO 527 Tensile Modulus, 1 mm/min 17200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 406 MPa ISO 178 Flexural Stress, break, 2 mm/min 395 MPa ISO 178 Flexural Strain, break, 2 mm/min 3.3 % ISO 178 Flexural Modulus, 2 mm/min 14600 MPa ISO 178 IMPACT (1) Izod Impact, unnotched 80*10*4 +23°C 100 KJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 KJ/m² ISO 180/1A THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	MECHANICAL (1)			
Tensile Modulus, 1 mm/min 17200 MPa ISO 527 Flexural Stress, yield, 2 mm/min 406 MPa ISO 178 Flexural Stress, break, 2 mm/min 395 MPa ISO 178 Flexural Strain, break, 2 mm/min 14600 MPa ISO 178 IMPACT (1) Lizod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Tensile Stress, break, 5 mm/min	268	MPa	ISO 527
Flexural Stress, yield, 2 mm/min 406 MPa ISO 178 Flexural Stress, break, 2 mm/min 395 MPa ISO 178 Flexural Strain, break, 2 mm/min 3.3 % ISO 178 Flexural Modulus, 2 mm/min 14600 MPa ISO 178 IMPACT (1) Lzod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Tensile Strain, break, 5 mm/min	3.2	%	ISO 527
Flexural Stress, break, 2 mm/min 395 MPa ISO 178 Flexural Strain, break, 2 mm/min 3.3 % ISO 178 Flexural Modulus, 2 mm/min 14600 MPa ISO 178 IMPACT (1) Izod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Tensile Modulus, 1 mm/min	17200	MPa	ISO 527
Flexural Strain, break, 2 mm/min 3.3 % ISO 178 Flexural Modulus, 2 mm/min 14600 MPa ISO 178 IMPACT (1) Izod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Flexural Stress, yield, 2 mm/min	406	MPa	ISO 178
Flexural Modulus, 2 mm/min 14600 MPa ISO 178 IMPACT (¹¹) Izod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (¹¹) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Flexural Stress, break, 2 mm/min	395	MPa	ISO 178
IMPACT (1) Izod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1)	Flexural Strain, break, 2 mm/min	3.3	%	ISO 178
Izod Impact, unnotched 80*10*4 +23°C 100 kJ/m² ISO 180/1U Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (¹¹) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Flexural Modulus, 2 mm/min	14600	MPa	ISO 178
Izod Impact, notched 80*10*4 +23°C 50 kJ/m² ISO 180/1A THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	IMPACT (1)			
THERMAL (1) CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Izod Impact, unnotched 80*10*4 +23°C	100	kJ/m²	ISO 180/1U
CTE, 23°C to 60°C, flow 1.7E-05 1/°C ISO 11359-2 CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	Izod Impact, notched 80*10*4 +23°C	50	kJ/m²	ISO 180/1A
CTE, 23°C to 60°C, xflow 7.6E-05 1/°C ISO 11359-2	THERMAL (1)			
·	CTE, 23°C to 60°C, flow	1.7E-05	1/°C	ISO 11359-2
HDT/Rf 0.45 MPa Flatw 80*10*4 sn=64mm 263 °C ISO 75/Rf	CTE, 23°C to 60°C, xflow	7.6E-05	1/°C	ISO 11359-2
10.75% 0.10 11.11 1	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	263	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 261 °C ISO 75/Af	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	261	°C	ISO 75/Af
PHYSICAL (1)	PHYSICAL (1)			
Mold Shrinkage, flow (2)	Mold Shrinkage, flow (2)	0.1 – 0.3	%	SABIC method
Density 1.56 g/cm³ ISO 1183	Density	1.56	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs) 0.6 % ISO 62-1	Water Absorption, (23°C/24hrs)	0.6	%	ISO 62-1
INJECTION MOLDING (3)	INJECTION MOLDING (3)			



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	290 – 305	°C	
Front - Zone 3 Temperature	290 – 300	°C	
Middle - Zone 2 Temperature	290 – 300	°C	
Rear - Zone 1 Temperature	280 – 295	°C	
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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 NONINFRINGEMENT 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.