

LNPTM VERTON™ COMPOUND RVL29ESS

RFL-8029

DESCRIPTION

LNP VERTON RVL29ESS is a compound based on Polyamide 66 (Nylon 66) resin containing 45% long glass fiber and 10% PTFE. Added features include Easy Molding, Heat Stabilized, Wear Resistant and Structural.

GENERAL INFORMATION	
Features	Good Processability, Heat Stabilized, Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding
Regional Availability	Global

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

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break, 5 mm/min	231	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Flexural Stress, yield, 2 mm/min	361	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3.2	%	ISO 178
Flexural Modulus, 2 mm/min	13600	MPa	ISO 178
Flexural Strain, break, 2 mm/min, 60°C	3.6	%	ISO 178
Flexural Strain, break, 2 mm/min, 100°C	3.2	%	ISO 178
Flexural Strain, break, 2 mm/min, 150°C	3.5	%	ISO 178
Flexural Strain, break, 2 mm/min, 200°C	2.7	%	ISO 178
Flexural Stress, yield, 2 mm/min, 60°C	300	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 100°C	256	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 150°C	204	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 200°C	162	MPa	ISO 178
Flexural Modulus, 2 mm/min, 60°C	11700	MPa	ISO 178
Flexural Modulus, 2 mm/min, 100°C	10500	MPa	ISO 178
Flexural Modulus, 2 mm/min, 150°C	9000	MPa	ISO 178
Flexural Modulus, 2 mm/min, 200°C	8900	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*3 -40°C	28	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 +23°C	82	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -40°C	74	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	30	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
Specific Heat	1478	J/kg-K	ASTM E1269
CTE, 23°C to 60°C, flow	2.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	4.9E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	258	°C	ISO 75/Af
Thermal Conductivity	0.27	W/m-K	ASTM D5930
PHYSICAL ⁽¹⁾			
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.13	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.48	%	ISO 294
Wear Factor Washer	21	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.39	-	ASTM D3702 Modified: Manual
Static COF	0.4	-	ASTM D3702 Modified: Manual
Density	1.65	g/cm ³	ISO 1183
Water Absorption, (23°C/24hrs)	1.19	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.46	%	ISO 62
INJECTION MOLDING ⁽³⁾			
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. 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.

(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.