LNP™ VERTON™ COMPOUND RVL29XXP

RFL-8029

DESCRIPTION

LNP VERTON RVL29XXP is a compound based on Polyamide 66 (Nylon 66) resin containing 45% long glass fiber and 10% PTFE. Added features include Wear Resistant and Structural.

GENERAL INFORMATION	
Features	Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, PTFE
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

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/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	82	kJ/m²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 -40°C	74	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	30	kJ/m²	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
Relative Temp Index, Elec [2]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	65	°C	UL 746B
PHYSICAL [1]			
Mold Shrinkage, flow, 24 hrs [3]	0.13	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.48	%	ISO 294
Wear Factor Washer	21	10^-10 in^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/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	1.19	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.46	%	ISO 62
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E45329-101282694	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) 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.

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