

LNPTM VERTONTM COMPOUND RV00AES

RF-700-10 EM HS

DESCRIPTION

LNP VERTON RV00AES is a compound based on Polyamide 66 (Nylon 66) resin containing 50% long glass fiber. Added features include Easy Molding, Heat Stabilized and Structural.

GENERAL INFORMATION	
Features	Good Processability, Heat Stabilized, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
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	254	MPa	ASTM D638
Tensile Strain, break	1.9	%	ASTM D638
Tensile Modulus, 50 mm/min	17510	MPa	ASTM D638
Flexural Stress	374	MPa	ASTM D790
Flexural modulus	14160	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	276	MPa	ISO 527
Tensile Stress, break, 5 mm/min	276	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	18100	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	366	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3	%	ISO 178
Flexural Modulus, 2 mm/min	15000	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	384	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	15	J	ASTM D3763
Multiaxial Impact	15	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	90	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	45	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	38	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	241	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.85E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.73E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.86E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.73E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	259	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	255	°C	ISO 75/Af
Relative Temp Index, Elec ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	110	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	110	°C	UL 746B
PHYSICAL ⁽¹⁾			
Density	1.58	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.18	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.22	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.8	%	ISO 294
Density	1.58	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	0.9	%	ISO 62-1
ELECTRICAL ⁽¹⁾			
Comparative Tracking Index (UL) {PLC}	5	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥1.5	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥0.75	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥0.75	mm	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	0	PLC Code	ASTM D495
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E45329-101282647	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	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) 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.

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