LNP™ VERTON™ COMPOUND RV00AES

RF-700-10 EM HS

DESCRIPTION

LNP VERTON* RV00AES is a compound based on Nylon 66 resin containing 50% Long Glass Fiber. Added features of this material include: Easy Molding, Heat Stabilized, Structural.

TYPICAL PROPERTY VALUES

Revision 20191113

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	254	MPa	ASTM D 638
Tensile Strain, break	1.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	17510	MPa	ASTM D 638
Flexural Stress	374	MPa	ASTM D 790
Flexural modulus	14160	MPa	ASTM D 790
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			
Izod Impact, notched, 23°C	384	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	ASTM D 3763
Multiaxial Impact	15	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	90	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	45	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	38	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	241	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.85E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.73E-05	1/°C	ASTM E 831
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 [1]	105	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	110	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	110	°C	UL 746B
PHYSICAL			
Density	1.58	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.18	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	0.22	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.8	%	ISO 294
Density	1.58	g/cm³	ISO 1183
Water Absorption, 23°C/24hrs	0.9	%	ISO 62-1
ELECTRICAL			
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 D 495
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E45329-101282647	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING			
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) 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.

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