LNP™ VERTON™ Compound UX03320

Americas: COMMERCIAL

Also known as: LNP™ VERTON™ Compound PDX-U-03320
Product reorder name: UX03320

LNP VERTON UX03320 is a compound based on Polyphthalamide resin containing proprietary fillers. Added feature of this grade is: Structural.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	2240	kgf/cm²	ASTM D 638
Tensile Strain, break	1.9	%	ASTM D 638
Tensile Modulus, 5 mm/min	185500	kgf/cm²	ASTM D 638
Flexural Stress	3050	kgf/cm²	ASTM D 790
Flexural Modulus	183500	kgf/cm²	ASTM D 790
Tensile Stress, break	200	MPa	ISO 527
Tensile Strain, break	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	20300	MPa	ISO 527
Flexural Stress, break, 2 mm/min	360	MPa	ISO 178
Flexural Modulus, 2 mm/min	17700	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	81	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	30	cm-kgf/cm	ASTM D 256
Multiaxial Impact	193	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	152	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	70	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	38	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	260	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.2E-05	1/°C	ISO 11359-2

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) 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.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	275	°C	ISO 75/Af
PHYSICAL			
Density	1.63	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.05 - 0.1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.08 - 0.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.06	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.15	%	ISO 294
Spiral flow (1mm)	30	cm	SABIC Method
Spiral flow (3mm)	70	cm	SABIC Method
Density	1.63	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	0.8	mm	UL 94

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15	%
Melt Temperature	315 - 330	°C
Front - Zone 3 Temperature	330 - 345	°C
Middle - Zone 2 Temperature	320 - 330	°C
Rear - Zone 1 Temperature	315 - 325	°C
Mold Temperature	140 - 165	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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