LNP™ VERTON™ COMPOUND UV00ASU

UF-700-10 HS UV

DESCRIPTION

LNP VERTON UV00ASU is a compound based on Polyphthalamide (PPA) resin containing 50% long glass fiber. Added features include UV Stabilized, Heat Stabilized and Structural.

GENERAL INFORMATION	
Features	Heat Stabilized, High stiffness/Strength, Weatherable/UV stable, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyphthalamide (PPA)
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, yield	257	MPa	ASTM D638
Tensile Stress, break	257	MPa	ASTM D638
Tensile Strain, yield	1.8	%	ASTM D638
Tensile Strain, break	1.8	%	ASTM D638
Tensile Modulus, 50 mm/min	19300	MPa	ASTM D638
Flexural Stress	386	MPa	ASTM D790
Flexural Modulus	17230	MPa	ASTM D790
Tensile Stress, yield	222	MPa	ISO 527
Tensile Stress, break	222	MPa	ISO 527
Tensile Strain, yield	1.4	%	ISO 527
Tensile Strain, break	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	19220	MPa	ISO 527
Flexural Stress	393	MPa	ISO 178
Flexural Modulus	17000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1228	J/m	ASTM D4812
Izod Impact, notched, 23°C	267	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	9	J	ASTM D3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	78	kJ/m²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	41	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	291	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	266	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.44E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.06E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.50E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.10E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	296	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	272	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.67	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.48	%	ISO 294
Density	1.66	g/cm³	ISO 1183
INJECTION MOLDING [3]			
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	

(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.

(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