LNP™ VERTON™ COMPOUND MV006S

MFX-7006 HS

DESCRIPTION

LNP VERTON MV006S is a compound based on Polypropylene (PP) resin containing 30% long glass fiber. Added features include Chemically Coupled, Structural and Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, High stiffness/Strength, No PFAS intentionally added
Fillers	Long Glass Fiber
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Exteriors
Building and Construction	Water Management
Consumer	Sport/Leisure, Home Appliances, Commercial Appliance
Industrial	Industrial General

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	110	MPa	ISO 527
Tensile Strain, break	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	7500	MPa	ISO 527
Flexural Modulus	6000	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	135	MPa	ISO 178
Flexural Stress, break, 2 mm/min	130	MPa	ISO 178
Tensile Modulus, 5 mm/min	7100	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	95	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	6100	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	135	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	130	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	24	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	42	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	24	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	35	kJ/m²	ISO 179/1eU
Izod Impact, notched, 23°C	195	J/m	ASTM D256
Izod Impact, unnotched, 23°C	460	J/m	ASTM D4812
Multiaxial Impact	14	J	ISO 6603

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Energy @ peak, 23°C	8	J	ASTM D3763
THERMAL [1]			
Vicat Softening Temp, Rate B/50	140	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	157	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	164	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	2.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.0E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	140	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	156	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.9E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ASTM E831
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]			
Density	1.12	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.008	%	ISO 62
Water Absorption, (23°C/saturated)	0.07	%	ISO 62-1
Mold Shrinkage, flow, 24 hrs	0.21	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.28	%	ISO 294
Density	1.12	g/cm³	ASTM D792
Water Absorption, (23°C/24hrs)	0.03	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	0.21	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.28	%	ASTM D955
Wear Factor Washer	44	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.39	-	ASTM D3702 Modified: Manual
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E45329-101358095	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	220 – 250	°C	
Front - Zone 3 Temperature	250 – 260	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	230 – 245	°C	
Mold Temperature	40 – 65	°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.

(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.

DISCLAIMER