LNP™ THERMOCOMP™ Compound UX06032

UX06032

DESCRIPTION

LNP THERMOCOMP UX06032 compound is based on Polyphthalamide (PPA) resin containing 30% glass fiber. Added features of this grade include: Non-Brominated & Non-Chlorinated Flame Retardant, Heat Stabilized.

GENERAL INFORMATION	
Features	Flame Retardant, Heat Stabilized, Non Cl/Br flame retardant, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyphthalamide (PPA)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Consumer	Commercial Appliance
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241030

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	130	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	11400	MPa	ISO 527
Flexural Stress, break, 2 mm/min	200	MPa	ISO 178
Flexural Modulus, 2 mm/min	9900	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched 80*10*4 +23°C	40	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, 23°C to 60°C, flow	2.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	5.4E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	275	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	258	°C	ISO 75/Af
Relative Temp Index, Elec [2]	140	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	140	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	140	°C	UL 746B
PHYSICAL [1]			
Mold Shrinkage on Tensile Bar, flow [3]	0.2 – 0.3	%	SABIC method
Density	1.46	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Water Absorption, (23°C/24hrs)	0.23	%	ISO 62-1
ELECTRICAL [1]			
Volume Resistivity	1E+15 – 1E+17	Ω.cm	ASTM D257
Comparative Tracking Index [4]	600	V	IEC 60112
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥0.41	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥0.41	mm	UL 746A
FLAME CHARACTERISTICS [1] [2]			
UL Yellow Card Link	E45329-101284058	-	-
UL Yellow Card Link 2	E207780-103093686	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.41	mm	UL 94
Glow Wire Ignitability Temperature, 0.8 mm	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.6 mm	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	850	°C	IEC 60695-2-13
Glow Wire Flammability Index, 3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.8 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.6 mm	960	°C	IEC 60695-2-12
INJECTION MOLDING [5]			
Drying Temperature	120 – 140	°C	
Drying Time	4 – 6	Hrs	
Melt Temperature	305 – 315	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	290 – 310	°C	
Rear - Zone 1 Temperature	280 – 300	°C	
Mold Temperature	130 – 150	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	40 – 80	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) Value shown here is based on internal measurement.

(5) 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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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