LNP™ THERMOCOMP™ COMPOUND UX08325

DESCRIPTION

LNP THERMOCOMP UX08325 compound is based on Polyphthalamide (PPA) resin containing 30% glass fiber. Added features of this grade include: Improved Plating Surface and Mechanical Performance targeted for Laser Direct Structuring (LDS) applications, SMT Process capable.

GENERAL INFORMATION	
Features	Dielectrics, Laser Direct Structuring, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyphthalamide (PPA)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241021

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	135	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.8	%	ASTM D638
Tensile Modulus, 5 mm/min	10880	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	197	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	194	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9770	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	125	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	11080	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	194	MPa	ISO 178
Flexural Strain, break, 2 mm/min	2	%	ISO 178
Flexural Modulus, 2 mm/min	9610	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	351	J/m	ASTM D4812
Izod Impact, notched, 23°C	31	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	2	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	263	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.4E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	261	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.55	g/cm³	ASTM D792
Mold Shrinkage, flow [2]	0.41	%	SABIC method
Mold Shrinkage, xflow [2]	0.52	%	SABIC method
Moisture Absorption (23°C / 50% RH)	0.53	%	ISO 62
ELECTRICAL [1]			
Relative Permittivity, 1 GHz	4.2	-	ASTM D150
Dissipation Factor, 1 GHz	0.01	-	ASTM D150
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E207780-101334270	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	315 – 330	°C	
Front - Zone 3 Temperature	325 – 340	°C	
Middle - Zone 2 Temperature	315 – 325	°C	
Rear - Zone 1 Temperature	310 – 320	°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) 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.

(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.

MORE INFORMATION

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

DISCLAIMER