LNP™ THERMOCOMP™ Compound UF0069S

UF-1006 FR HS LEX

DESCRIPTION

LNP THERMOCOMP UF0069S compound is based on Polyphthalamide (PPA) resin containing 30% glass fiber. Added features of this grade include: Flame Retardant, Heat Stabilized.

GENERAL INFORMATION	
Features	Flame Retardant, Heat Stabilized, 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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	181	MPa	ASTM D638
Tensile Strain, break	1.9	%	ASTM D638
Tensile Modulus, 50 mm/min	13780	MPa	ASTM D638
Flexural Stress	258	MPa	ASTM D790
Flexural Modulus	12060	MPa	ASTM D790
Tensile Stress, break	166	MPa	ISO 527
Tensile Strain, break	1.7	%	ISO 527
Tensile Modulus, 1 mm/min	12070	MPa	ISO 527
Flexural Stress	264	MPa	ISO 178
Flexural Modulus	12320	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	550	J/m	ASTM D4812
Izod Impact, notched, 23°C	90	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	2	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	44	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	250	°C	ASTM D648
PHYSICAL [1]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.655	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.24	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	0.22	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.59	%	ISO 294
Density	1.65	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.26	%	ISO 62
FLAME CHARACTERISTICS (3)			
UL Yellow Card Link	E121562-101377968	-	-
UL Recognized, 94-5VA Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-0 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	300 – 310	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	290 – 300	°C	
Rear - Zone 1 Temperature	280 – 295	°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.

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