LNP™ THERMOCOMP™ Compound RX06421S

DESCRIPTION

LNP THERMOCOMP RX06421S is a compound based on Nylon 66 resin containing 30% Glass Fiber. Added features of this material include: Easy Molding, Heat Stabilized, Clean Compounding System.

GENERAL INFORMATION	
Features	Good Processability, Heat Stabilized, Low ionics/Outgassing/Liquid particle count, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Consumer Goods
Electrical and Electronics	Electronic Components
Industrial	Material Handling, Industrial General

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	181	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.6	%	ASTM D638
Tensile Modulus, 50 mm/min	11000	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	264	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9620	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	181	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.6	%	ISO 527
Tensile Modulus, 1 mm/min	10550	MPa	ISO 527
Flexural Modulus, 2 mm/min	9480	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	969	J/m	ASTM D4812
Izod Impact, notched, 23°C	92	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	57	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	255	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	243	°C	ASTM D648
CTE, -30°C to 30°C, flow	2.5E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.0E-04	1/°C	ASTM D696

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	256	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	239	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.39	-	ASTM D792
Density	1.38	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.75	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	1.2	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 110	°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.

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