LNP™ THERMOCOMP™ Compound IX04513C

PDX-I-04513 CCS

DESCRIPTION

LNP THERMOCOMP IX04513C compound is based on Nylon 6/12 resin containing 30% glass fiber. Added features of this grade include: LNP Clean Compounding Technology.

GENERAL INFORMATION	
Features	Low ionics/Outgassing/Liquid particle count, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyamide 612 (Nylon 612)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	130	MPa	ASTM D638
Tensile Strain, break	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	8830	MPa	ASTM D638
Flexural Stress	204	MPa	ASTM D790
Flexural Modulus	8080	MPa	ASTM D790
Tensile Stress, break	128	MPa	ISO 527
Tensile Strain, break	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	8290	MPa	ISO 527
Flexural Stress	187	MPa	ISO 178
Flexural Modulus	7110	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	688	J/m	ASTM D4812
Izod Impact, notched, 23°C	69	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	10	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	41	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	197	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.14E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.32E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	4.04E-05	1/°C	ISO 11359-2

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	7.33E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	192	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.301	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.9 – 1.1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.2 – 0.4	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.9 – 1.1	%	ISO 294
Density	1.29	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.21	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	270 – 275	°C	
Front - Zone 3 Temperature	270 – 280	°C	
Middle - Zone 2 Temperature	260 – 270	°C	
Rear - Zone 1 Temperature	255 – 265	°C	
Mold Temperature	65 – 95	°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.

MORE INFORMATION

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

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