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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
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

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	