LNP™ THERMOCOMP™ COMPOUND NF001

PCA-F-1001
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP NF001 compound is based on Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend containing 5% glass fiber.

GENERAL INFORMATION	
Features	High stiffness/Strength
Fillers	Glass Fiber
Polymer Types	Polycarbonate + ABS (PC+ABS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260204

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	63	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	49	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6.2	%	ASTM D638
Tensile Modulus, 50 mm/min	3550	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	102	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3220	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	62	MPa	ISO 527
Tensile Stress, break, 5 mm/min	51	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	5.3	%	ISO 527
Tensile Modulus, 1 mm/min	3300	MPa	ISO 527
Flexural Stress	94	MPa	ISO 178
Flexural Modulus, 2 mm/min	3120	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	595	J/m	ASTM D4812
Izod Impact, notched, 23°C	150	J/m	ASTM D256
Multiaxial Impact	21	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	34	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	37	kJ/m²	ISO 180/1U

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	136	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	123	°C	ASTM D648
CTE, -30°C to 30°C, flow	5.3E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	8.2E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	134	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	120	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.19	-	ASTM D792
Density	1.18	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.17	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.6	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.25	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 270	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	250 – 260	°C	
Rear - Zone 1 Temperature	230 – 245	°C	
Mold Temperature	40 – 80	°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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