LNP™ THERMOCOMP™ Compound SF008

SF-1008

DESCRIPTION

LNP THERMOCOMP SF008 is a compound based on Nylon 12 resin containing 40% Glass Fiber.

GENERAL INFORMATION	
Features	Low Moisture Absorption, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyamide 12 (Nylon 12)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Building and Construction	Building Component
Consumer	Sport/Leisure, Home Appliances, Commercial Appliance
Electrical and Electronics	Electronic Components

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	135	MPa	ASTM D638
Tensile Strain, break	10.5	%	ASTM D638
Tensile Modulus, 50 mm/min	8270	MPa	ASTM D638
Flexural Stress	96	MPa	ASTM D790
Flexural Modulus	7580	MPa	ASTM D790
Tensile Stress, break	152	MPa	ISO 527
Tensile Strain, break	9	%	ISO 527
Tensile Modulus, 1 mm/min	8760	MPa	ISO 527
Flexural Stress	213	MPa	ISO 178
Flexural Modulus	9000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1441	J/m	ASTM D4812
Izod Impact, notched, 23°C	256	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	75	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	18	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	176	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	170	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	166	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.37	g/cm³	ASTM D792

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.18	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.73	%	ISO 294
Density	1.37	g/cm³	ISO 1183
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	225 – 240	°C	
Front - Zone 3 Temperature	225 – 240	°C	
Middle - Zone 2 Temperature	220 – 230	°C	
Rear - Zone 1 Temperature	215 – 225	°C	
Mold Temperature	70 – 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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