LNP™ THERMOCOMP™ Compound GZ004

DESCRIPTION

LNP THERMOCOMP GZ004 compound is based on Polysulfone (PSU) resin containing 20% milled glass.

GENERAL INFORMATION	
Features	Low Warpage, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polysulfone (PSU)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 1 mm/min	3700	MPa	ISO 527
Tensile Stress, yield, 5 mm/min	57	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.6	%	ISO 527
Tensile Nominal Strain, break, 5 mm/min	5	%	ISO 527
Flexural Modulus, 2 mm/min	3600	MPa	ISO 178
Flexural Stress, break, 2 mm/min	104	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	40	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	55	kJ/m²	ISO 179/1eU
THERMAL [1]			
Vicat Softening Temp, Rate B/50	186	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	170	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	181	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	4.9E-5	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.2E-5	1/°C	ASTM E831
PHYSICAL [1]			
Density	1.35	g/cm³	ISO 1183
Mold Shrinkage, flow [2]	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow [2]	0.4 – 0.6	%	SABIC method

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.1 – 0.3	%	ISO 62-4
Water Absorption, (23°C/saturated)	0.5 – 0.6	%	ISO 62-1
FLAME CHARACTERISTICS			
UL Yellow Card Link	E45329-101343831	-	-
UL Recognized, 94V-2 Flame Class Rating (3)	1.5	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	≤0.05	%	
Melt Temperature	360 – 370	°C	
Rear - Zone 1 Temperature	325 – 340	°C	
Middle - Zone 2 Temperature	340 – 350	°C	
Front - Zone 3 Temperature	350 – 360	°C	
Nozzle Temperature	340 – 370	°C	
Mold Temperature	150	°C	
Back Pressure	0.2 – 0.3	MPa	

(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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card

(4) 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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