LNP™ THERMOCOMP™ COMPOUND RB008

RB-1008
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP RB008 compound is based on Nylon 6/6 resin containing 40% glass bead.

GENERAL INFORMATION	
Features	Low Warpage, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Bead
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	55	MPa	ASTM D638
Tensile Strain, break	3.3	%	ASTM D638
Tensile Modulus, 50 mm/min	5100	MPa	ASTM D638
Flexural Stress	102	MPa	ASTM D790
Flexural modulus	3780	MPa	ASTM D790
Tensile Stress, break	58	MPa	ISO 527
Tensile Strain, break	2.7	%	ISO 527
Tensile Modulus, 1 mm/min	5300	MPa	ISO 527
Flexural Stress	103	MPa	ISO 178
Flexural Modulus	4060	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	229	J/m	ASTM D4812
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	4	J	ASTM D3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	20	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	2	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	68	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.86E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.58E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	4.96E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	5.68E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	102	°C	ISO 75/Af
Relative Temp Index, Elec [2]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	65	°C	UL 746B
PHYSICAL [1]			
Density	1.46	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	1.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	1.8 – 2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	1.9 – 2.1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	1.8 – 2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	1.9 – 2.1	%	ISO 294
Density	1.45	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.55	%	ISO 62
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101281616	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 110	°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) 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.

(3) 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.

(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.

DISCLAIMER