

LNPTTM THERMOCOMPTM COMPOUND OF008

OF-1008

DESCRIPTION

LNP THERMOCOMP OF008 compound is based on linear Polyphenylene Sulfide (PPS) resin containing 40% glass fiber.

GENERAL INFORMATION	
Features	High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
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 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	14400	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.4	%	ISO 527
Tensile Stress, break, 5 mm/min	159	MPa	ISO 527
Flexural Modulus, 2 mm/min	12900	MPa	ISO 178
Flexural Stress, break, 2 mm/min	233	MPa	ISO 178
Tensile Stress, break	140	MPa	ASTM D638
Tensile Strain, break	1.6	%	ASTM D638
Tensile Modulus, 50 mm/min	14100	MPa	ASTM D638
Flexural Stress	234	MPa	ASTM D790
Flexural Modulus	14220	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m ²	ISO 180/1U
Izod Impact, unnotched, 23°C	534	J/m	ASTM D4812
Izod Impact, notched, 23°C	96	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	252	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	278	°C	ISO 75/Bf
CTE, 23°C to 60°C, flow	1.40E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	4.50E-05	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	264	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Temp Index, Elec ⁽²⁾	220	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	200	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	220	°C	UL 746B
PHYSICAL ⁽¹⁾			
Density	1.7	g/cm ³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	1	%	ASTM D955
Wear Factor Washer	373	10 ⁴ -10 in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.41	-	ASTM D3702 Modified: Manual
Static COF	0.5	-	ASTM D3702 Modified: Manual
ELECTRICAL ^{(1) (2)}			
High Amp Arc Ignition (HAI), PLC 4	≥1.5	mm	UL 746A
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
Hot-Wire Ignition (HWI), PLC 0	≥6	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 1	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥1.5	mm	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-101284690	-	-
UL Yellow Card Link 2	E121562-101283821	-	-
UL Yellow Card Link 3	E45329-101344459	-	-
UL Yellow Card Link 4	E45329-101344627	-	-
UL Recognized, 94-5VA Flame Class Rating	≥3	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥0.45	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 320	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>



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