LNP™ THERMOCOMP™ COMPOUND WX05456

9760

DESCRIPTION

LNP THERMOCOMP WX05456 is a compound based on PBT containing Mineral.

TYPICAL PROPERTY VALUES

Revision 20200109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	48	MPa	ASTM D 638
Tensile Strain, break	1.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	4220	MPa	ASTM D 638
Flexural Stress	90	MPa	ASTM D 790
Flexural Modulus	4390	MPa	ASTM D 790
Tensile Stress, break	47	MPa	ISO 527
Tensile Strain, break	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	4650	MPa	ISO 527
Flexural Stress	88	MPa	ISO 178
Flexural Modulus	4200	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	197	J/m	ASTM D 4812
Izod Impact, notched, 23°C	26	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	7	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	2	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	171	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	71	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.81E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.67E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.81E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.68E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	163	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	82	°C	ISO 75/Af
Relative Temp Index, Elec (1)	105	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	105	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	105	°C	UL 746B
PHYSICAL			
Density	1.546	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.05	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	1.47	%	ISO 294

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	1.51	%	ISO 294
Density	1.54	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-101283790	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 275	°C	
Front - Zone 3 Temperature	265 – 275	°C	
Middle - Zone 2 Temperature	250 – 260	°C	
Rear - Zone 1 Temperature	230 – 245	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) 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.

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