LNP™ THERMOCOMP™ COMPOUND WX05502

9750
REGION ASIA

DESCRIPTION

LNP™ THERMOCOMP™ WX05502 is a compound based on Polyester, TP resin containing Flame Retardant, Glass Fiber, Mineral. Added features of this material include: Flame Retardant.

TYPICAL PROPERTY VALUES

Revision 20190806

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	90	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.4	%	ASTM D 638
Tensile Modulus, 50 mm/min	13240	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	141	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	10900	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	85	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.2	%	ISO 527
Tensile Strain, break, 5 mm/min	1.2	%	ISO 527
Tensile Modulus, 1 mm/min	11740	MPa	ISO 527
Flexural Stress	142	MPa	ISO 178
Flexural Modulus, 2 mm/min	11380	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	337	J/m	ASTM D 4812
Izod Impact, notched, 23°C	18	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	8	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	22	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	221	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	205	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.1E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	217	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	197	°C	ISO 75/Af
Relative Temp Index, Elec (1)	130	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	130	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	140	°C	UL 746B
PHYSICAL			
Specific Gravity	1.81	-	ASTM D 792
Density	1.8	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.3 – 0.5	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥1.5	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥0.75	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥0.75	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 2	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥3	mm	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101283806	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.75	mm	UL 94
UV-light, water exposure/immersion	F2	-	UL 746C
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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