LNP™ THERMOCOMP™ COMPOUND MF004AS

MF-1004 HS

DESCRIPTION

LNP THERMOCOMP* MF004AS is a compound based on Polypropylene resin containing 20% Glass Fiber. Added features of this material include: Heat Stabilized.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	63	MPa	ASTM D 638
Tensile Strain, break	2.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	4550	MPa	ASTM D 638
Flexural Stress	92	MPa	ASTM D 790
Flexural Modulus	4340	MPa	ASTM D 790
Tensile Stress, break	65	MPa	ISO 527
Tensile Strain, break	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	5100	MPa	ISO 527
Flexural Stress	104	MPa	ISO 178
Flexural Modulus	5600	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	325	J/m	ASTM D 4812
Izod Impact, notched, 23°C	48	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	8	J	ASTM D 3763
Multiaxial Impact	1	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	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	149	°C	ASTM D 648
CTE, -40°C to 40°C, xflow	7.45E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.45E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	145	°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	1.034	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.03	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.4 – 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.9 – 1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.72	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.95	%	ISO 294
Density	1.03	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Hot-Wire Ignition (HWI), PLC 3	≥1.5	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 4	≥0.75	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥0.75	mm	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-101284109	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°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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