LNP™ THERMOCOMP™ COMPOUND RC008H

RC-1008

DESCRIPTION

LNP THERMOCOMP* RC008H is a compound based on Nylon 66 resin containing 40% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare.

TYPICAL PROPERTY VALUES

Revision 20200109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	288	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.8	%	ASTM D 638
Tensile Modulus, 5 mm/min	32000	MPa	ASTM D 638
Flexural Stress, brk, 2.6 mm/min, 100 mm span	429	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	26100	MPa	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	1219	J/m	ASTM D 4812
Izod Impact, notched, 23°C	108	J/m	ASTM D 256
Multiaxial Impact	4	J	ISO 6603
Instrumented Impact Total Energy, 23°C	15	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	71	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	255	°C	ASTM D 648
CTE, -30°C to 30°C, flow	11	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	36.6	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	261	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	252	°C	ISO 75/Af
Relative Temp Index, Elec [1]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	65	°C	UL 746B
PHYSICAL			
Specific Gravity	1.33	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.54	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.4 – 0.6	%	ASTM D 955
Density	1.34	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.78	%	ISO 62
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E121562-101282584	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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) 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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