LNP™ THERMOCOMP™ COMPOUND RC006XXH

RC-1006 HC

DESCRIPTION

LNP THERMOCOMP RC006XXH is a compound based on Nylon 66 resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare.

TYPICAL PROPERTY VALUES

Revision 20191213

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	269	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	25200	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	382	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	20300	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	267	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	24760	MPa	ISO 527
Flexural Stress	364	MPa	ISO 178
Flexural Modulus, 2 mm/min	18960	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1080	J/m	ASTM D 4812
Izod Impact, notched, 23°C	102	J/m	ASTM D 256
Multiaxial Impact	2	J	ISO 6603
Instrumented Impact Total Energy, 23°C	7	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	64	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	262	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	257	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.5E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	6.3E-05	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	257	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.27	-	ASTM D 792
Density	1.274	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.7	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	1	%	ISO 62
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	

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