LNP™ THERMOCOMP™ COMPOUND UC006H

UC-1006

DESCRIPTION

LNP THERMOCOMP* UC006H is a compound based on Polyphthalamide 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, break	287	MPa	ASTM D 638
Tensile Strain, break	1.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	26110	MPa	ASTM D 638
Flexural Stress	419	MPa	ASTM D 790
Flexural Modulus	22630	MPa	ASTM D 790
Tensile Stress, break	263	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	28160	MPa	ISO 527
Flexural Stress	413	MPa	ISO 178
Flexural Modulus	22320	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	827	J/m	ASTM D 4812
Izod Impact, notched, 23°C	74	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	8	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	51	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	285	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.8E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.96E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.89E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.02E-05	1/°C	ISO 11359-2
PHYSICAL			
Density	1.32	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.31	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.16	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.62	%	ISO 294
Wear Factor Washer	6	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.27	-	ASTM D 3702 Modified: Manual
Static COF	0.21	-	ASTM D 3702 Modified: Manual
Density	1.32	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.66	%	ISO 62
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	315 – 330	°C	
Front - Zone 3 Temperature	325 – 340	°C	
Middle - Zone 2 Temperature	315 – 325	°C	
Rear - Zone 1 Temperature	310 – 320	°C	
Mold Temperature	140 – 165	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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