LNP™ THERMOCOMP™ COMPOUND DC006

DC-1006

DESCRIPTION

LNP THERMOCOMP* DC006 is a compound based on Polycarbonate resin containing Carbon Fiber.This product is also known as THERMOCOMP* DC-1006.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	141	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	141	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	15870	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	195	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	141	MPa	ISO 527
Tensile Stress, break, 5 mm/min	141	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.8	%	ISO 527
Tensile Strain, break, 5 mm/min	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	15780	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	192	MPa	ISO 178
Flexural Modulus, 2 mm/min	14300	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	587	J/m	ASTM D 4812
Izod Impact, notched, 23°C	69	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	12	J	ASTM D 3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	44	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	147	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	142	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.4E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.1E-05	1/°C	ASTM E 831
CTE, 23°C to 60°C, flow	4.4E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	2.E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	148	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	143	°C	ISO 75/Af
PHYSICAL			
Density	1.33	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.12	%	ASTM D 570
Mold Shrinkage, flow	0.09	%	SABIC method
Mold Shrinkage, xflow	0.33	%	SABIC method

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs	0.1 – 0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Density	1.33	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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