LNP™ THERMOCOMP™ COMPOUND DC006ER

DC-1006 EM MR
REGION ASIA

DESCRIPTION

LNP THERMOCOMP* DC006ER is a compound based on Polycarbonate resin containing 30% Carbon Fiber. Added features of this material include: Easy Molding, Mold Release, Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20190717

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	150	MPa	ASTM D 638
Tensile Strain, break	1.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	19580	MPa	ASTM D 638
Flexural Stress	220	MPa	ASTM D 790
Flexural Modulus	14540	MPa	ASTM D 790
Tensile Stress, break	148	MPa	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	16700	MPa	ISO 527
Flexural Stress	226	MPa	ISO 178
Flexural Modulus	16500	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	480	J/m	ASTM D 4812
Izod Impact, notched, 23°C	69	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	9	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	143	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	141	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.71E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.79E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.71E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.78E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Af
Relative Temp Index, Elec [1]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	80	°C	UL 746B
PHYSICAL			
Density	1.3	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.14	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.04 – 0.1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.3 – 0.4	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.04 – 0.13	%	ISO 294

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	0.35 – 0.4	%	ISO 294
Density	1.3	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.21	%	ISO 62
ELECTRICAL			
Surface Resistivity	1.E+02 – 1.E+06	Ohm	ASTM D 257
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101283808	-	-
UL Recognized, 94V-1 Flame Class Rating	1.5	mm	UL 94
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	

(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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