LNP™ THERMOCOMP™ COMPOUND DF002ER

DF-1002 EM MR
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP* DF002ER is a compound based on Polycarbonate resin containing 10% Glass Fiber. Added features of this material include: Easy Molding. Mold Release

TYPICAL PROPERTY VALUES

Revision 20191031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	83	MPa	ASTM D 638
Tensile Strain, break	3.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	4170	MPa	ASTM D 638
Flexural Stress	149	MPa	ASTM D 790
Flexural modulus	4280	MPa	ASTM D 790
Tensile Stress, break	84	MPa	ISO 527
Tensile Strain, break	3.6	%	ISO 527
Tensile Modulus, 1 mm/min	4100	MPa	ISO 527
Flexural Stress	117	MPa	ISO 178
Flexural Modulus	3920	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	929	J/m	ASTM D 4812
Izod Impact, notched, 23°C	97	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	13	J	ASTM D 3763
Multiaxial Impact	9	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	55	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	136	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.81E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.34E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.82E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.35E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	137	°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	1.275	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.15	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.4	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	0.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.43	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.51	%	ISO 294
Density	1.27	g/cm³	ISO 1183
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-101344608	-	-
UL Recognized, 94V-1 Flame Class Rating	≥3	mm	UL 94
UL Recognized, 94V-2 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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