LNP™ THERMOCOMP™ COMPOUND DF004RXP

DF004RXP
REGION ASIA

DESCRIPTION

LNP* Thermocomp* DF004RXP is a compound based on Polycarbonate resin containing 20% Glass Fiber. Some light color grades may have lower impact data than natural and black. Added features include: Mold Release, UL

TYPICAL PROPERTY VALUES

Revision 20190718

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	105	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	102	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	6100	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	173	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	169	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	6070	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	105	MPa	ISO 527
Tensile Stress, break, 5 mm/min	103	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	3.3	%	ISO 527
Tensile Modulus, 1 mm/min	5720	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	163	MPa	ISO 178
Flexural Stress, break, 2 mm/min	163	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3.7	%	ISO 178
Flexural Modulus, 2 mm/min	5880	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	895	J/m	ASTM D 4812
Izod Impact, notched, 23°C (Natural & Black Colors)	125	J/m	ASTM D 256
Izod Impact, notched, 23°C (Light & White Colors)	98	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	24	J	ASTM D 3763
Multiaxial Impact	5	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	141	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.89E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.39E-05	1/°C	ASTM D 696
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

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Density	1.352	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.13	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Water Absorption, 23°C/24hrs	0.17	%	ISO 62-1
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101282820	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	3 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	285 – 310	°C	
Nozzle Temperature	285 – 305	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.1 – 0.3	MPa	
Screw Speed	50 – 90	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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