



LNP™ THERMOCOMP™ Compound DC0049XF

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound DC-1004 FR

Product reorder name: DC0049XF

LNP THERMOCOMP DC0049XF is a compound based on Polycarbonate resin containing 20% Carbon Fiber. Added features of this material include: Electrically Conductive, Flame Retardant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1340	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1340	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	128800	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	2050	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	2050	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	112900	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	133	MPa	ISO 527
Tensile Stress, break, 5 mm/min	133	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.5	%	ISO 527
Tensile Strain, break, 5 mm/min	1.5	%	ISO 527
Tensile Modulus, 1 mm/min	13000	MPa	ISO 527
Flexural Modulus, 2 mm/min	10540	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	47	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Multiaxial Impact	12	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	143	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	140	°C	ASTM D 648



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THERMAL			
CTE, -30°C to 30°C, flow	1.E-06	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	8.E-06	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	143	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.31	-	ASTM D 792
Density	1.3	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.08	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.03 - 0.05	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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