



LNP™ THERMOCOMP™ Compound DF004ER

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound DF-1004 EM MR

Product reorder name: DF004ER

LNP THERMOCOMP™ DF004ER is a compound based on Polycarbonate resin containing 20% Glass Fiber. Added features of this material include: Easy Molding. Mold Release.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	980	kgf/cm ²	ASTM D 638
Tensile Strain, break	3.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	57600	kgf/cm ²	ASTM D 638
Flexural Stress	1690	kgf/cm ²	ASTM D 790
Flexural Modulus	56900	kgf/cm ²	ASTM D 790
Tensile Stress, break	96	MPa	ISO 527
Tensile Strain, break	3.8	%	ISO 527
Tensile Modulus, 1 mm/min	5620	MPa	ISO 527
Flexural Stress	166	MPa	ISO 178
Flexural Modulus	5750	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	87	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	14	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	169	cm-kgf	ASTM D 3763
Multiaxial Impact	63	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	140	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.19E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.36E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	4.18E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.37E-05	1/°C	ISO 11359-2



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Af
PHYSICAL			
Density	1.322	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.11	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.4 - 0.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.2 - 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.43 - 0.5	%	ISO 294
Density	1.31	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.17	%	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