



LNP™ THERMOCOMP™ Compound DF003E

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound DF-1003 EM

Product reorder name: DF003E

LNP THERMOCOMP DF003E is a compound based on Polycarbonate resin containing 15% Glass Fiber. Added features of this material include: Easy Molding.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	840	kgf/cm ²	ASTM D 638
Tensile Stress, break	780	kgf/cm ²	ASTM D 638
Tensile Strain, yield	3.2	%	ASTM D 638
Tensile Strain, break	5	%	ASTM D 638
Tensile Modulus, 50 mm/min	49200	kgf/cm ²	ASTM D 638
Flexural Modulus	42100	kgf/cm ²	ASTM D 790
Tensile Stress, yield	82	MPa	ISO 527
Tensile Stress, break	78	MPa	ISO 527
Tensile Strain, yield	3.3	%	ISO 527
Tensile Strain, break	4.4	%	ISO 527
Tensile Modulus, 1 mm/min	4750	MPa	ISO 527
Flexural Stress	130	MPa	ISO 178
Flexural Modulus	4300	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	92	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	8	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	208	cm-kgf	ASTM D 3763
Multiaxial Impact	68	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	55	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	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	138	°C	ASTM D 648



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -40°C to 40°C, flow	6.84E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.42E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	6.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.5E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	144	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Af
PHYSICAL			
Density	1.31	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.54	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.63	%	ISO 294
Density	1.31	g/cm ³	ISO 1183



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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