



LNP™ THERMOCOMP™ Compound EC005R

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound EC-1005 MR

Product reorder name: EC005R

LNP THERMOCOMP EC005R is a compound based on Polyetherimide resin containing 25% Carbon Fiber. Added features include: Mold Release, Electrically Conductive.

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	2040	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	428100	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	2810	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	194500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	83	MPa	ISO 527
Tensile Stress, break, 5 mm/min	179	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	0	%	ISO 527
Tensile Strain, break, 5 mm/min	1	%	ISO 527
Tensile Modulus, 1 mm/min	22900	MPa	ISO 527
Flexural Modulus, 2 mm/min	18560	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	52	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	6	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	29	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	214	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	207	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.88E+01	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.4E+01	1/°C	ASTM E 831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	217	°C	ISO 75/Bf



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Af
PHYSICAL			
Density	1.36	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.18	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0 - 0	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0 - 0	%	ASTM D 955
Density	1.36	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	360 - 365	°C
Front - Zone 3 Temperature	365 - 375	°C
Middle - Zone 2 Temperature	355 - 365	°C
Rear - Zone 1 Temperature	345 - 355	°C
Mold Temperature	120 - 150	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	60 - 100	rpm