



LNP™ THERMOCOMP™ Compound RC006H

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound RC-1006

Product reorder name: RC006H

LNP THERMOCOMP™ RC006H is a compound based on Nylon 66 resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	2710	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	283200	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	4160	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	191100	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	271	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	22650	MPa	ISO 527
Flexural Modulus, 2 mm/min	21020	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	103	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	149	cm-kgf	ASTM D 3763
Multiaxial Impact	33	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	68	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	261	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.08E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.86E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.15E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.86E-05	1/°C	ISO 11359-2
PHYSICAL			
Specific Gravity	1.27	-	ASTM D 792



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Density	1.278	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.65	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.08	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.56	%	ISO 294
Wear Factor Washer	20	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.46	-	ASTM D 3702 Modified
Static COF	0.36	-	ASTM D 3702 Modified
Density	1.27	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.14	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	280 - 305	°C
Front - Zone 3 Temperature	295 - 305	°C
Middle - Zone 2 Temperature	280 - 295	°C
Rear - Zone 1 Temperature	265 - 275	°C
Mold Temperature	95 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm