



LNP™ THERMOCOMP™ Compound UC006H

Americas: COMMERCIAL

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

Product reorder name: UC006H

LNP THERMOCOMP™ UC006H is a compound based on Polyphthalamide resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	2920	kgf/cm ²	ASTM D 638
Tensile Strain, break	1.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	266300	kgf/cm ²	ASTM D 638
Flexural Stress	4270	kgf/cm ²	ASTM D 790
Flexural Modulus	230800	kgf/cm ²	ASTM D 790
Tensile Stress, break	263	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	28160	MPa	ISO 527
Flexural Stress	413	MPa	ISO 178
Flexural Modulus	22320	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	84	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	7	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	90	cm-kgf	ASTM D 3763
Multiaxial Impact	23	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	51	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	285	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.8E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.96E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.89E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.02E-05	1/°C	ISO 11359-2



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Density	1.324	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.31	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.16	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.62	%	ISO 294
Wear Factor Washer	6	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.27	-	ASTM D 3702 Modified
Static COF	0.21	-	ASTM D 3702 Modified
Density	1.32	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.66	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15	%
Melt Temperature	315 - 330	°C
Front - Zone 3 Temperature	325 - 340	°C
Middle - Zone 2 Temperature	315 - 325	°C
Rear - Zone 1 Temperature	310 - 320	°C
Mold Temperature	140 - 165	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm