



LNP™ THERMOCOMP™ Compound UC008H

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound UC-1008

Product reorder name: UC008H

LNP THERMOCOMP™ UC008H is a compound based on Polyphthalamide resin containing 40% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	2660	kgf/cm ²	ASTM D 638
Tensile Strain, break	1	%	ASTM D 638
Tensile Modulus, 50 mm/min	344400	kgf/cm ²	ASTM D 638
Flexural Stress	4490	kgf/cm ²	ASTM D 790
Flexural Modulus	273500	kgf/cm ²	ASTM D 790
Tensile Stress, break	232	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	35530	MPa	ISO 527
Flexural Stress	425	MPa	ISO 178
Flexural Modulus	26590	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	33	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	71	cm-kgf	ASTM D 3763
Multiaxial Impact	50	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	>248	°C	ASTM D 648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>250	°C	ISO 75/Af
PHYSICAL			
Density	1.38	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.4	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.7 - 0.9	%	ASTM D 955



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PHYSICAL			
Mold Shrinkage, xflow, 24 hrs (5)	0.7 - 0.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.7 - 0.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.7 - 0.9	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.46 - 1.38	%	ISO 62
ELECTRICAL			
Volume Resistivity	1.E+02 - 1.E+04	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+02 - 1.E+04	Ohm	ASTM D 257



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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