LNP™ THERMOCOMP™ Compound UCF22S

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound UCF-1004 HS
Product reorder name: UCF22S

LNP THERMOCOMP UCF22S is a compound based on Polyphthalamide resin containing 20% Glass Fiber, 10% Carbon Fiber. Added features of this material include: Heat Stabilized, Electrically Conductive.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	1910	kgf/cm²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	132300	kgf/cm²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	2690	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	110100	kgf/cm²	ASTM D 790
Tensile Stress, break, 5 mm/min	178	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	12760	MPa	ISO 527
Flexural Stress	249	MPa	ISO 178
Flexural Modulus, 2 mm/min	10430	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	42	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Multiaxial Impact	18	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	50	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	28	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	280	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	262	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.7E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	7.4E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	275	°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	255	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.31	-	ASTM D 792
Density	1.31	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.34	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.56	%	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