



LNP™ THERMOCOMP™ Compound UX04509

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound PDX-U-04509

Product reorder name: UX04509

LNP THERMOCOMP UX04509 is a compound based on Polyphthalamide resin containing Proprietary Filler(s). Added feature of this material is: Electrically Conductive.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	3130	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	3130	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	375400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	4320	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	4320	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	298700	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	293	MPa	ISO 527
Tensile Stress, break, 5 mm/min	293	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.1	%	ISO 527
Tensile Strain, break, 5 mm/min	1.1	%	ISO 527
Tensile Modulus, 1 mm/min	34440	MPa	ISO 527
Flexural Stress	425	MPa	ISO 178
Flexural Modulus, 2 mm/min	28830	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	73	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	7	cm-kgf/cm	ASTM D 256
Multiaxial Impact	29	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	63	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	47	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	303	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	289	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.8E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	2.7E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	301	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	283	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.38	-	ASTM D 792
Density	1.36	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.19	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2 - 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.8	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.29	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°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	150 - 170	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm