LNP™ THERMOCOMP™ Compound HB006

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound HB-1006
Product reorder name: HB006

LNP THERMOCOMP HB006 is a compound based on Nylon 11 resin containing 30% Glass Bead.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	460	kgf/cm²	ASTM D 638
Tensile Stress, break	440	kgf/cm²	ASTM D 638
Tensile Strain, yield	23.2	%	ASTM D 638
Tensile Strain, break	20	%	ASTM D 638
Tensile Modulus, 50 mm/min	20000	kgf/cm²	ASTM D 638
Flexural Stress	560	kgf/cm²	ASTM D 790
Flexural Modulus	19600	kgf/cm²	ASTM D 790
Tensile Stress, yield	46	MPa	ISO 527
Tensile Stress, break	41	MPa	ISO 527
Tensile Strain, yield	23.7	%	ISO 527
Tensile Strain, break	43.2	%	ISO 527
Tensile Modulus, 1 mm/min	2090	MPa	ISO 527
Flexural Stress	58	MPa	ISO 178
Flexural Modulus	3000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	157	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	8	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	339	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	165	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	145	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	46	°C	ASTM D 648

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	151	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	47	°C	ISO 75/Af
PHYSICAL			
Density	1.27	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1.7	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.5	%	ISO 294
Density	1.24	g/cm³	ISO 1183

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15	%
Melt Temperature	225 - 260	°C
Front - Zone 3 Temperature	260 - 270	°C
Middle - Zone 2 Temperature	230 - 245	°C
Rear - Zone 1 Temperature	200 - 210	°C
Mold Temperature	45 - 55	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm